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ORIGINAL ARTICLES

MEDICAL REFORMATION.*

BY J. S. TRIPLETT, M. D., HARRISONVILLE, MO.

After reorganization reformation.

When the *A. M. A.* instituted the present plan of reorganizing the medical profession of America, six years ago, it contemplated much more than mere organization. This was to be a first step or preparation by means of which it would be enabled to accomplish the high ideals for which the medical profession stands, viz.: the advancement of medical science; alleviating the sufferings of humanity; limiting and controlling the spread of disease; prolonging human life; protecting the unsuspecting public against charlatans, quacks, illegal practitioners and that greatest monster of them all, the nostrum evil.

Reorganization may be likened to the building and perfecting of an intricate mechanical construction, and reformation to the product of such a machine. Without the one we can never hope to materialize the other.

We are all more or less familiar with the progress and present condition of reorganization. We have witnessed how the membership of our State Association has increased from an annual average of about 250 for a few years prior to 1900, to over 2000 at the present writing: how our own Society of Cass County, which was represented in the State Association by an annual average of not more than 4, to a membership of 30 at this time.

Notwithstanding the fact that reorganization is in only its formative period, its objects and purposes not yet fully comprehended by all physicians, yet confidence in its principles is so firmly fixed that its possibilities for effecting reforms are most flattering.

There has been a great public awakening to the necessity of stamping out everything that savors of dishonesty and fraud and as a natural sequence a great reform wave, whose counterpart has, perhaps, never been known, is sweeping over our country. I cannot doubt but that this awakening of the public conscience to the many evils which are corrupting and disgracing our country, will result in many needed reforms. The time is ripe for action.

*Prepared for the Annual Meeting, Jefferson City, May, 1906.

Not only in matters medical, but in politics, in federal, state and municipal government, and in the great commercial enterprises, frauds, corruption and moral turpetude are being unearthed and exposed to public view. The work of exposing these evils is being done by some of the most influential, talented and courageous men of our day.

The time was, and that not far back in the past, when the eminent and much sought after physician and surgeon did not have the time or inclination to take up arms against the evils which are menacing the health and liberty of our people.

Not so today; for among those who are sacrificing time and energy in the interest of medical reforms are numbered some of our most eminent teachers, our highest authorities in medicine, our most skilled surgeons and specialists, not to mention the vast army of intelligent and loyal practitioners who have been awakened to a sense of duty, and who are doing yeoman service.

Convincing evidence of the earnestness of the reform movement is shown by the increased amount of reform literature which has appeared within the last two years. I doubt not that the reform literature of this period exceeds in amount that of the same class for the entire previous decade.

It is very true that "we must educate the people"; but before we qualify as teachers we must first educate the medical profession. In other words, if we would reform others, we must first reform ourselves. Had the medical profession recognized this truth years ago its influence would be much greater than it is today. I would therefore place the physician at the head of the list as most in need of reform.

Many of our laws regulating the practice of medicine and other medical matters need changing; others need to be repealed and better ones enacted. There are too many medical colleges; and the matriculation and degree requirements are too low in many of them. Reciprocity among the several states and territories is needed. Charlatanism, quackery, and the nostrum evil ought to be completely stamped out.

Believing that it will devolve for the most part, upon the medical profession to conduct these reform movements, I will endeavor to point out a line of procedure which in my mind is feasible. In doing this I will confine my remarks to a consideration of the physician in his relation and duty to: 1st. Scientific Medicine. 2nd. His Fellow Practitioner. 3rd. The Public. 4th. His Literature. 5th. The County Society.

1. *Scientific Medicine.* To promote the advancement of scientific medicine should be his first duty. He must be imbued with that lofty professional spirit which gratuitously bestows upon mankind the rewards of his labor. If he discovers the specific cause of disease or a new and important symptom he publishes it to the world. If he

discovers or produces a life-saving remedy he gives it to the world. If he invents or improves an instrument or device the world may have it.

While scientific medicine taken as a whole, has advanced *pari passu* with the other sciences, arts and industries, I am sorry to confess that one of its branches, viz., therapeutics, has been sadly neglected and abused.

The deplorable condition in which we find therapeutics is due to the pernicious habit physicians have allowed themselves to fall into of prescribing proprietary remedies for all diseases. This is so very easy to do. It requires no mental exertion. In many of these the physician does not even know its composition. He is told that a certain proprietary is indicated in certain conditions, in this and in that disease.

And why should the doctor consume his valuable time in looking up the action and dosage of official remedies when the wily promoters of these "ethical" proprietaries have relieved him of this responsibility by supplying a remedy accompanied with all necessary information?

Dr. J. A. Pettit (*Journal A. M. A.*, Vol. xlvi, p. 484) has so ably pointed out the cause of prescribing proprietaries that I quote him. He says: "Doctors are only American people, and a scanty, hastily acquired medical education still leaves them Americans, of whom a good judge of human nature once said, 'They love to be duped.' Their thoughtlessness and lack of therapeutic knowledge make them ready victims for the shrewd and persistent advertising of the master of that wily art, the nostrum man." . . . . The deplorable condition referred to is brought about in the first place through the agency of the subsidized medical press, which gives up not only its advertising pages, but half its reading matter for the love of gold, and publishes what the editors must know is false and fakish; by means of attractive literature and alluring testimonials; through the agency of suave detail men with samples and urgent requests to try "our products;"—each bunch of samples covering the necessities of most all diseases. . . . . The doctors, too, are at fault; their ignorance of pharmacy and prescription writing is the crux of the matter—we might say their judgment and discernment are deficient.

The blame for this may be laid to deficient teaching of therapeutics in the medical colleges. . . . "The mental apathy of the average physician along therapeutic lines, his lack of discernment and blind faith in the assertions of commercial firms who have something to sell are some of the greatest causes."

The fate of therapeutics will depend entirely upon the will of the profession. If we study our cases diligently and prescribe intelligently an official drug or preparation with whose action and dosage we are familiar, we can soon place therapeutics upon a firm and rational scientific basis, where it deserves to be. Or, if we continue to

blindly prescribe proprietaries, the composition of many of which we are ignorant, for the diseases in which their promoters claim such wonderful "specific" and "selective" action, the art and science of therapeutics, as such, will finally be lost to our profession. Which course will we pursue?

Many of us have apparently forgotten that our Pharmacopeias, Dispensatories and the many excellent works on Materia Medica and Pharmacology contain the same drugs that enter into the composition of proprietaries and nostrums. Then what excuse can we have for prescribing the latter?

In the interest of scientific medicine, I beg each of you to do your full duty in reclaiming and elevating the art and science of therapeutics.

2. *Fellow Practitioners.* Since reorganization has been in operation physicians have had better opportunities to judge each others merits and demerits, and as might be expected, a kindlier and more tolerant feeling prevails among them than formerly did.

There are yet a few physicians among us who consider it unethical and beneath their dignity to consult with those who adhere to a different system or school of practice. I am convinced that this attitude is not in accordance with the principles and ultimate objects of reorganization: for, are we not striving toward a unification of all system into one grand system or school which shall include the sum total of all human knowledge?

I think we violate no principle of ethics in consulting with any physician, of whatsoever school, who is in honest possession of a certificate issued by our State Licensing Board. I do not wish to be understood, however, as recognizing professionally the professors and followers of such institutions as osteopathy, christian science, eddyism, magnetic healing, etc.

A few instances have been brought to my notice in which unethical conduct was charged to a fellow practitioner, which upon being investigated, was found to be, not a breach of ethics, but jealousy on the part of the complainer. So it often is that ethics must bear the brunt of calumny.

Upon the subject of our fellow practitioner I quote a valuable suggestion from the Journal *A. M. A.*: "If the energy that is being wasted by physicians in attacking, belittling, slandering and fighting one another were devoted to work and association in work, we should have a vastly better educated profession, and the public would receive its medical attention from gentlemen very much better qualified to give it." . . . . And they would all be better off financially. . . . . Where one finds a small city or town in which the medical men are devoting their superfluous energies to belittling each other, there, as a rule, one finds a community with the medical men below the average in ability, and in financial standing; patients are being referred to

some surgeon or specialist in the nearest large city, instead of being attended by some local man who is quite as good as the city specialist, or might be if he would devote his energies to his own betterment and work in harmony with his fellows."

3. *The Public.* When the public is convinced that the medical profession is being organized for the sole purpose of giving it better medical service, and for protecting it against illegal practitioners, charlatans, quacks and the nostrum evil, and not in the sense of a trust to increase the resources of physicians, we can depend upon it for its cooperation.

This will be a difficult thing to do so long as we have a subsidized press; for the public cannot distinguish between true and false (commercial) medical teaching and literature. And the Proprietary Association of America will see to it that the public is abundantly supplied with the latter.

Much credit and praise is due *Collier's Weekly*, *The Ladies Home Journal* and other high class lay publications for the great work they are doing in exposing the nostrum evil. Then let *us*, whose duty it is to enlighten the public, not prove recreant to the great responsibilities which devolve upon us as members of a noble and learned profession.

4. *Literature.* In a large measure a physician's character, reputation and his methods of practice are influenced, or I might better say governed, by the literature which he reads. If you know the class of literature he reads you know to what class of physicians he belongs.

Not long ago I called upon a physician whose office was in a dingy back room over a——store. After greeting him I noticed lying upon his table a copy of the Medical——, one of the trashiest, most worthless and lowest class medical publications it has ever been my lot to examine. It is controlled by and published in the interest of some of the vilest proprietaries that ever come to the notice of physicians. Taking it up I said: "Doctor, I see you take the Medical—" "O, yes, I could'nt get along without it," was his reply. This doctor has been a practitioner for many years; he does not belong to a county society and cannot be induced to join. Do you know to what class of physicians he belongs?

Every self respecting physician should look upon with suspicion and shun all publications which are owned or controlled by the manufacturers of proprietaries and nostrums. They are not sent out in the interest of scientific medicine, notwithstanding their assertions to the contrary.

Perhaps there is not a physician in the United States though not a subscriber, who does not at frequent intervals receive these publications as sample copies or marked numbers. They are thus adroitly thrust upon us whether we will or not, with their wares, and the indis-

criminating physician falls into the trap, thereby creating the necessary fund and profit for their continued existence.

While the low class, unworthy and commercial medical publications greatly out-number the truly scientific and respected ones, physicians will have no difficulty in obtaining a sufficiency of the latter to meet all their requirements.

The ideal medical journal would be one which stands for the highest attainments in scientific medicine; controlled by and published in the interest of the medical profession; fights its battles and upholds its honor; fearless and relentless in exposing and throwing the searchlight of truth upon the frauds, deceptions and evils which beset the profession and the public.

5. *The County Society.* The County Society being the unit of organization, the foundation of, and the door to everything above it, we must need consider it the logical factor by and through whose aid reforms may, and can be accomplished.

The first essential for effective work is an active and harmoniously working society with which every reputable physician in the county should be affiliated. There are very few physicians who are so dead morally and professionally, but that with the association and friendly counsel of the society, may be made to see the errors of their way and be reformed. Even should society influence fail to reform a physician it is none the worse for the efforts put forth in his behalf. The county society, under the new plan of organization, is an institution created for the express purpose of doing things.

Then as a society, but more especially as individuals, beside the scientific part of our work, let us inform our congressmen and our state legislators as to what laws should be enacted for the profession and for the public good: let us prosecute quacks, charlatans, and illegal practitioners so determinedly that their days among us will be few and full of trouble: let us point out to the press the great injury it is doing the public by being a party to the nostrum traffic: let us shun those so-called medical journals which are sent to us in the interest of proprietaries, and finally, let us counsel with the judge, the lawyer, the statesman, the clergyman, the politician and the layman, upon all questions in which medical matters of whatsoever nature, are to be considered.

NINETY-ONE CASES OF TYPHOID FEVER IN PRIVATE PRACTICE WITHOUT A DEATH: A CLINICAL STUDY.

BY WILLIAM H. HAYS, M. D., HANNIBAL, MISSOURI.

In a well-ordered, modern hospital, with a corps of efficient trained nurses, resident house physicians, every modern facility for the preparation of the dietary and the application of the most modern methods of hydrotherapy, the care of typhoid fever patients resolves itself into a comparatively simple task.

In private practice, where the physician has no such aids to reinforce his efforts, where there are comparatively few trained nurses, where the patients must be treated in their own homes, subject to the irregular nursing and medication, and where it is exceedingly difficult for the orders of the attending physician to be enforced, the treatment of typhoid fever is an entirely different proposition.

During the years 1903-4-5-6, I have treated ninety-one cases of typhoid fever without a death and with but two relapses; this without any of the benefits of hospital treatment, except in one case. This is an experience sufficiently unique, I think, to merit publication for the benefit of the profession at large, inasmuch as I am sure that a series of this sort, cannot fail to be helpful to many men similarly situated.

All but one of my ninety-one cases were treated in private houses, and in the majority of cases, the nursing was done by members of the family of the patient, although I have kept several efficient trained nurses busy and have insisted upon their employment whenever it was possible. Many families do not appreciate the value of nursing by trained graduates, or cannot afford the expense. In such cases, I have had to make the best of the situation.

My routine treatment consists of the usual preliminary purgation, strictly liquid diet, consisting of milk, broth, water, or modifications of these. I order the liberal use of water for cold sponging whenever the temperature reaches above 102.4°, and in persistent high temperature, I resort to ironing of the spine with ice. I use drugs whenever the symptoms call for the employment of any special drug, but my main reliance has been upon the internal administration of acetozone.

In one or two instances where patients simply could not take the acetozone solution, even when the taste was disguised with various flavoring materials, such as orange or lemon juice, oil of gaultheria, saccharine, etc., I have placed the acetozone solution directly into the stomach through a stomach tube, first washing out the viscus with weak salt solution and then placing the desired quantity of the acetozone solution directly into the stomach. This procedure has been very successful whenever used.

I have the solution prepared and on hand and insist upon its being taken in liberal quantities, from four to six ounces religiously, and in addition to this, whenever the patient wants a drink of water, the acetozone solution is supplied and nothing else.

I insist upon the employment of the acetozone solution whenever and wherever it can be used. To this rigid rule I have adhered faithfully, and to it I attribute my exemption from fatalities and from severe complications.

Whether or not I am right can be easily determined from the fact that I have had ninety-one cases of typhoid fever without a death and with but two relapses. Whenever I have had charge of a typhoid fever case, I have used the acetozone treatment.

While some have not been so favorably affected as others, there has always been the same general modification of the course of the disease. The temperature always showed a lower maximum. The pulse showed the same improvement and maintained a more uniform range. There was decided improvement in the mental condition, as well as in all the gastro-intestinal symptoms. After the patients had become saturated with the acetozone solution, it was always noticed that very little sponging was necessary. My nurses have often spoken to me of the change in the typhoid cases and the comparatively little difficulty they had experienced in controlling the patients on acetozone, as compared with those who were not thus treated. All the patients took more food and assimilated it better on the acetozone than on any other treatment I have ever tried.

The complications have been much fewer in comparison with the other systemic treatments which I followed prior to taking up the acetozone treatment. Hemorrhage occurred in only two cases; one was slight and the other very serious. I have been particularly pleased at the practical elimination of gastric complications and have been spared many of the distressing complaints which used to give me so much trouble.

Apparently, acetozone produces no constitutional effect beyond copious diuresis. The chief indication in typhoid fever being to restrict the infection and remove its cause, I first order a brisk cathartic and follow this up with acetozone solution, which is naturally suggested in this condition, inasmuch as it can be taken in the form of an aqueous solution, limited only by the capacity of the patient to swallow and absorb it, without any liability to even temporary inconvenience. I prefer the oral administration to any other. High enemas are given twice daily until the bowel movements are controlled by same. Enemas are then limited to one or two a day as necessary. The patient receives a cleansing bath daily, with complete change of bedding and clothing.

Some sort of drug is needed and acetozone answers the purpose of combined beverage and medicine. Most patients are willing to do

whatever is necessary to make my treatment effective and the best results have always been accomplishd when the acetozone has been taken copiously.

My method of preparing the solution is as follows: Add acetozone to water in the proportion of fifteen grains to the quart, making up two or three quarts at a time. This stock solution is allowed to stand for a time until the powder settles to the bottom and is kept in the refrigerator so that it is cool, and therefore, more palatable. The dose of from four to six ounces is taken as often as possible until case is under control, then is regulated by the routine of the case.

If the patient objects to the taste, which not infrequently happens, I direct the nurse, or the member of the family in charge of the case, to add, just before taking, a little orange or lemon extract or the juice of these fruits, which as a rule, overcomes any distaste, or else flavor the solution with saccharine and oil gaultheria.

In my experience, acetozone, as an intestinal antiseptic, is superior to anything else I have ever employed. I have noticed an immediate effect upon all the symptoms shortly after the institution of its use. The odor of the stools and of the sick-room is markedly improved, so much so as to cause comment.

Convalescence of the patients has been rapid. In fact, it has been difficult to convince some of them that they were ill after the second or third week. I have had no serious trouble from tympanites nor been much embarrassed by delirium.

The very best results, of course, have been shown in those patients who have been under the care of trained nurses, inasmuch as under these conditions my orders were carefully carried out and whatever has been necessary for the care of the patient or the treatment of symptoms has been done properly and promptly. On the other hand, many of the patients were given the solution irregularly, owing to the resistance of the patient and the lack of persistence on the part of the over-sympathetic family attendants, but even in spite of this, the acetozone treatment was successful in every case.

My series takes in cases of all ages, from the very young to those well along in life, and of both sexes. There has been no question about the diagnosis in any of the cases, as they were all typical cases of typhoid fever and in obscure cases the clinical diagnosis was confirmed by laboratory findings.

It might be of interest in connection with this paper to refer to certain specific cases, and therefore, I have included eleven cases taken at random, and it will easily be seen by reference to the temperature charts that the fever shows the effect of the acetozone treatment very shortly in each instance, showing a gradual fall until the normal standard was reached and maintained.

Case I. Mrs. D. E. M., aged forty years, married, housewife, first came under my care on April 6th, 1904, stating that she had been in bed for five days, trying to fight off the illness which was overpowering her. She complained of intense frontal headache, persistent nausea and that it was impossible to retain any food; prostration severe, pulse 122, temperature 105.6°. Abdomen was distended and very tender. Patient's expression was apprehensive. She was exceedingly nervous and complained continually of the pain in her head. Constipation obstinate.

Provisional diagnosis of typhoid was made, confirmed by a positive Widal test made three days later.

Preliminary treatment consisted of ten grains of calomel, given at one dose, followed by an ounce of castor oil in four hours. Enema ordered to be given at once and to be continued until results were obtained. Nurse was directed to iron spine with ice until temperature was reduced to 102.4°. All food prohibited, stomach Lavage was ordered and acetozone to be given by the tube. An enema and bath were ordered daily at 8 a. m.

This was one of the severest cases in the entire series. The temperature ranged very high and the complications, myocarditis and nephritis, were exceedingly serious. Prostration was extreme and I expected to lose the patient any day up to the sixteenth. Then, on the twenty-second a violent hemorrhage took place. Operation was suggested, but the use of adrenalin and saline hypodermoclysis tided us over. On the twenty-fifth another hemorrhage took place, temperature becoming sub-normal, pulse running to 160. The administration of solutions of adrenalin into the veins, accompanied with elevation and cold applications to the abdomen, checked this hemorrhage. From this time on the improvement was gradual but positive, temperature becoming normal permanently on May 12th. On the 17th the patient was discharged convalescent.

In this case it was frequently found necessary to place the acetozone solution directly into the stomach, using the stomach tube, as the taste was extremely disagreeable to the patient.

Case II. Mrs. J. K., age twenty-seven years, married, housewife, first came under my care on July 1st, 1904. Had never been sick, except a normal confinement two years before. At this time was five months pregnant. She had felt very sick but came to my office. Complained of headache, felt depressed, dull and sore all over, no appetite, temperature 99.4°, pulse 67. Constipated, tongue coated. No plasmodium in the blood. Sent to bed in charge of nurse.

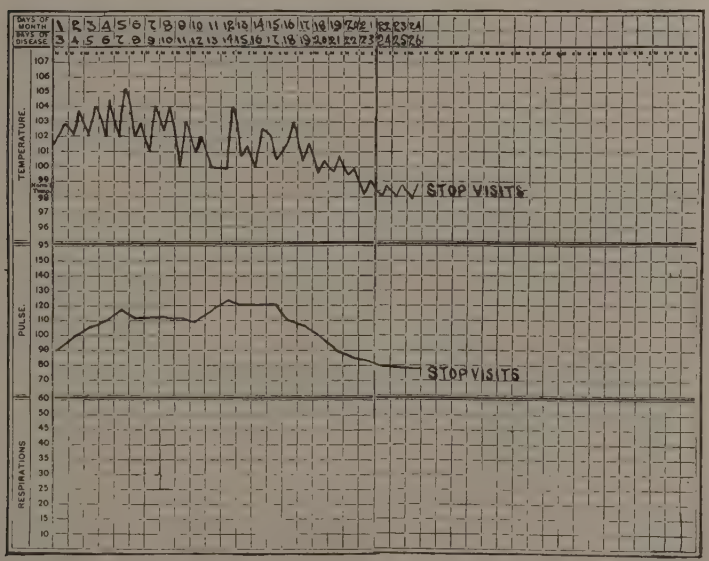
Provisional diagnosis typhoid, confirmed later by positive Widal test.

Preliminary purging by ten grains of calomel, followed four hours later by magnesium citrate, later by high enema. Immediately

put on acetozone solution, which was crowded. Ironing with ice ordered for all temperature over 102.5°. The temperature in this case did not range very high, but there was one complication in the second week, a miscarriage accompanied by a severe hemorrhage. At this time both the diazo reaction and the Widal test were positive. With the exception of the above complication, the course of this case was not unusual, temperature ranging lower each day, until on the 22d of July, it became permanently normal. A week later, patient was put on semi-solids, and beginning with the next week, on full diet, at which time she was discharged practically well.

Case III. Mrs. J. M., age twenty-seven years, married, housewife, first consulted me on August 1st, 1904. Had apparently been sick for five days when I saw her. Complained of intense frontal headache, with malaise and sensitive areas upon the limbs. No appetite. Complained of a chilly feeling. Bowels very loose. Entire abdomen very tender. Temperature 103.4°, pulse 81. Frequent nose bleed. Widal positive. Diazo positive. Diagnosis, typhoid. The first few days of this case, the temperature ranged very high, touching 105 several times in the afternoons. The case looked very critical up to the 10th. Had some trouble with tympanites, which ceased after the 10th. No other complications. Acetozone was instituted and the temperature controlled by cold spongings. The temperature became normal on the 1st of September and has remained so.

Case IV. Mr. A. B., I first saw on February 2d, 1905, in the even-

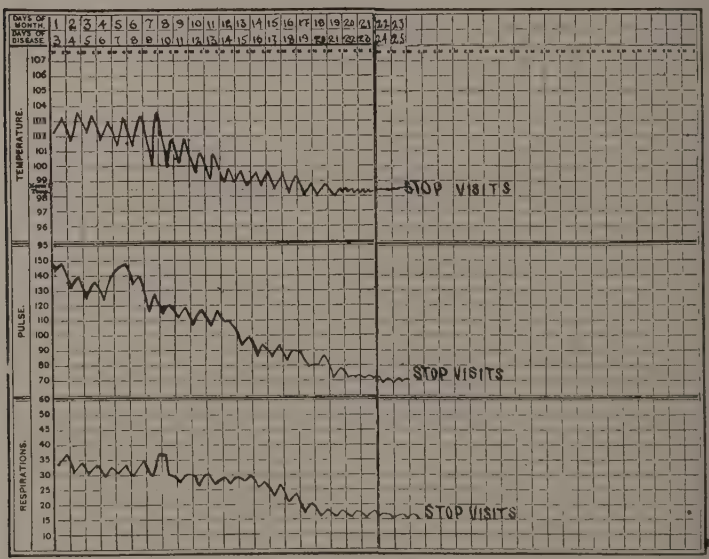


Miss M. T., age 23. Case 81. Specimen No. 10.

ing, when his temperature registered 104°, with the gastro-intestinal symptoms most severe. The statement was made to me that the patient had had ten bowel movements that day and had also vomited severely. He was immediately started on the acetozone treatment and cold spongings, and the diet was restricted, as is customary, to strictly liquids, and these but sparingly. Even the small amount given could not be retained during the first few days, owing to severe emesis. His temperature reached 104° each afternoon for the first three days and thereafter did not reach 103° but once during the course of the illness. On the afternoon of the 13th, when the patient's temperature reached 102° for the last time (never afterwards going to 101.5°), he complained of being hungry. The treatment was continued without any change, and on the 21st of February, or the nineteenth day after coming into my care, his temperature reached normal to remain there, and on the 26th he was discharged.

This case, during the first few days, was exceedingly severe and the rapid recovery can be directly attributed to the acetozone, combined with my regular general measures.

Case V. Miss V. McG., an American girl, fifteen years of age, by occupation a box-maker, I first saw on February 28th, 1905, and she was an exceedingly sick girl. Her temperature, on several occasions, nearly reached 105° and all of the symptoms were most pronounced. The family could not afford a trained nurse, so her mother acted in this capacity. The patient experienced some trouble during



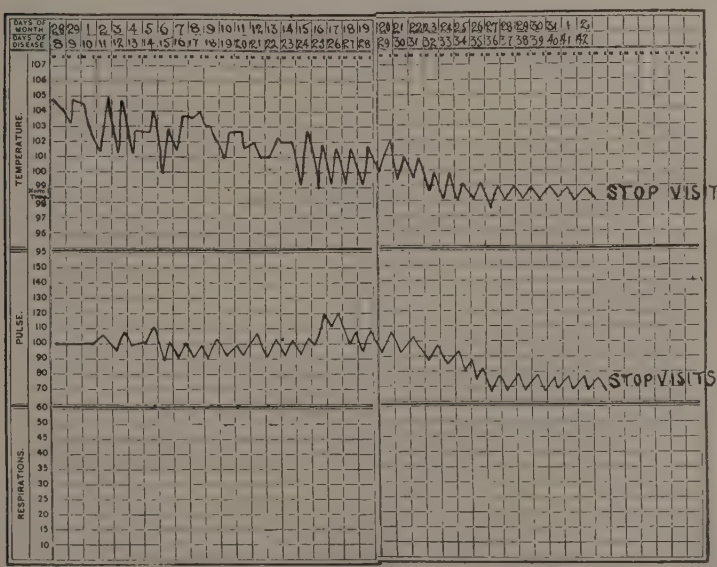
Mrs. H. F. F., 27 years. No. 72. Specimen No. 9.

the first few days in taking the full amount of acetozone which I required, but afterwards had no difficulty in taking it regularly and in full quantities. Her fever showed a tendency to rise during the first two weeks, but after the nursing arrangements had improved, owing to the family's acquiring experience, the temperature fell rapidly and reached the normal permanently on the thirty-fifth day of the illness, or the twenty-eighth day after my assuming charge of the case.

Case VI. R. W., age fifteen years, school boy, first seen March 22d, 1905, with intense frontal headache, complete loss of appetite, nausea and diarrhea. Temperature 106°, pulse 110. Boy was dull and listless. Abdomen distended and very tender. Profuse nose bleed two days before. Diagnosis of typhoid, confirmed later on by positive Widal. He was immediately placed upon my regular acetozone treatment and the course was satisfactory throughout, with the exception of two days. The second day after I saw him his temperature in the afternoon touched 107° and the next day 106°, but there was gradual subsidence and on the 10th of April I ceased my visits. He was ordered to continue the acetozone solution for two weeks and then to begin the full diet.

Mathes was not using necessary amount of ice to control temperature, so insisted on trained nurse. Mathes asked for two more days, and uses 480 pounds of ice those two days with the desired result—continuing same for several days.

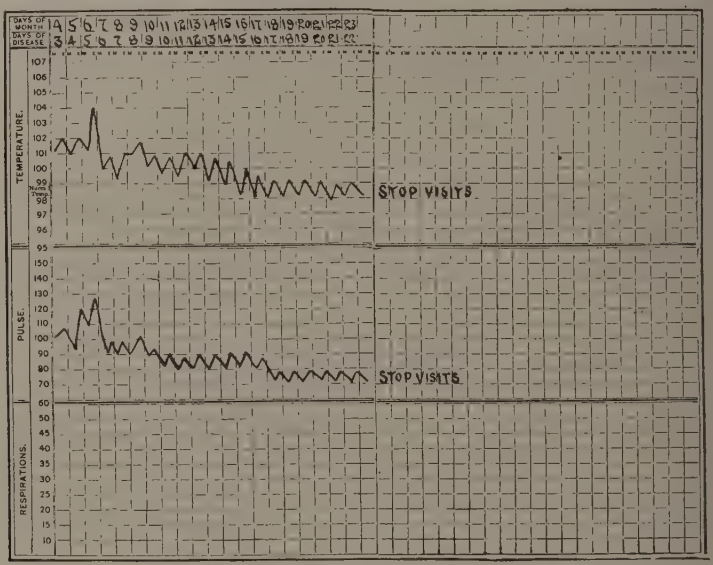
Case VII. Mr. B. W., an American engineer by occupation, came



Miss Vida Mc G., age 15. No. 63. Specimen No. 5.

into my office on April 12th, 1905, late in the afternoon, with a subnormal temperature (97°). His previous history led me to believe that this was a case of malarial infection and for two days he was so treated. Then unmistakable symptoms of typhoid appeared and he was put to bed, given a dose of magnesium sulphate and the acetozone treatment started. This was undoubtedly a case of typhoid fever, but running a very mild course, and on the 25th of April, or the thirteenth day after he called me in, his temperature reached the normal.

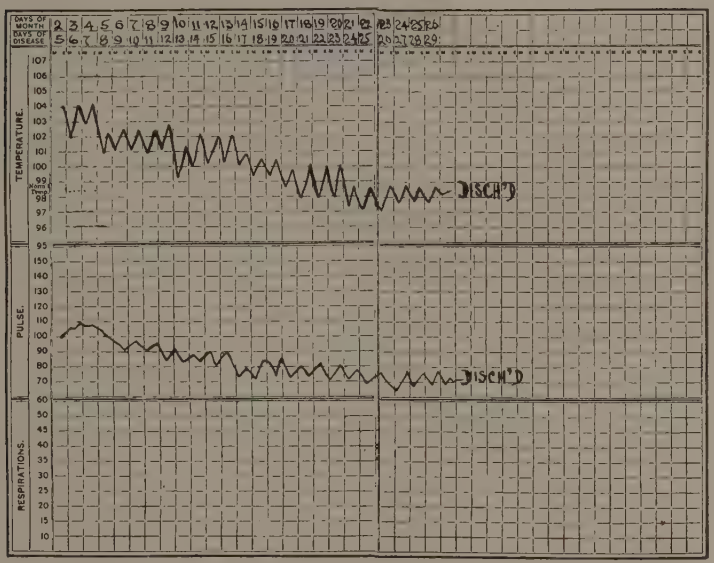
Case VIII. Miss B. G., American girl, sixteen years of age, first came under my care on the morning of July 4th, 1905, with a temperature of 101.2°. The acetozone treatment was started at once. During the first few days her bowel movements were very numerous, seven to nine daily. On the third day her temperature reached 104°, with a pulse of 126, but after vigorous application of acetozone solution, it never afterwards went above 101.4°, reaching the normal permanently on the 18th of the month, or the fourteenth day after I assumed charge of the case.



Miss B. G., age 16. No. 69. Specimen No. 8. Miss B. S., Nurse.

Case IX. Mrs. H. F. F., American, housewife, age twenty-eight, I first saw on the 1st of August, 1905. She had been sick for two days. Her pulse was rapid and feeble, ranging about 140. Temperature 102° to 103°. Bowel movements from four to eight daily. The family did not wish to bear the expense of a trained nurse, but the illness was so severe and resisted the treatment so fiercely during the first five days, that I insisted upon the employment of a trained nurse, who

took charge on the sixth day. From that time on, things went much better. The temperature only reached 103° once after the nurse took hold, and reached the normal permanently on the 18th of August, or twenty-one days after the patient became ill.



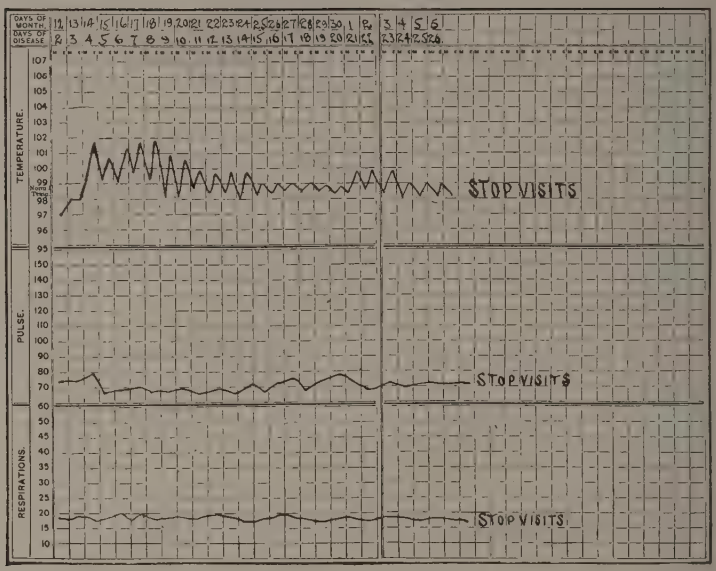
Mr. A. C. B., Case 60. Specimen No. 4. Miss Rose Riley, Nurse.

A reference to the temperature, pulse and respiration curves will show very beautifully the effect of the vigorous administration of acetozone and the other measures which are so admirably carried out by an efficient trained nurse.

Case X. Mrs. M. T., American housewife, age thirty-three, grew much worse after I first saw her on the 1st of November, 1905. Five days afterwards her afternoon temperature reached 105°. No nurse was employed in this case, and as a consequence, the temperature shows very considerable variation, reaching the normal, however, in spite of inefficient nursing and irregular treatment, on the 21st of November, or three weeks after the treatment was begun.

Of the two relapses in my series, one was the following:

Case XI. This was a trained nurse who had been employed by me for quite a while, and who had been exposed to the infection in taking care of a patient out of the city. She was put on my regular acetozone treatment and was convalescent in twenty-three days from the beginning of her illness. Thirty days from her first day in bed, which was the fourth of the illness, she went home, traveling 350 miles, relapsed and treated herself for sixteen days, using the acetozone treatment which she had learned so well while nursing my cases.



Mr. B. W., 37 years. Case No. 57. Specimen No. 7.

When she returned I asked her why she had not called in a physician and she stated that the only physician to be had in the town where she resided would not use the acetozone treatment, so she preferred to "go it alone." Rather risky, it is true, but she reported here for duty entirely well seventy-two days from the onset of her original attack, and has been well ever since.

These are typical histories taken at random from my series, no effort at selection being made. Very many more could have been illustrated, but these few will, I think, serve to demonstrate that typhoid in private practice can show just as good results as in hospitals, provided the treatment be persisted in.

The cardinal principles are purgation, followed by colonic flushings twice daily, then control of the symptoms as they arise by suitable medication, liquid diet and not too much of it, urging upon the patient the imbibing of large quantities of water in the shape of acetotone solution, no other liquid but this solution being allowed in the form of a beverage. At first the patients may have difficulty in taking the quantities desired, but shortly they, or their family—whosoever is at fault,—either succumb to my insistance or are desirous of cooperating, and thereafter the patient finds no difficulty in taking much larger quantities than one would suppose ordinarily possible. Whenever the temperature reached 102.5°, sponging was instituted. That this treatment is successful in private practice is evident by my having had, in four years, ninety-one cases without a death and with but two relapses.

609 Church St.

A CONTRIBUTION TO THE SURGERY OF THE URETER. TRANS-URETERO-URETERAL ANASTOMOSIS.*

I—INTRAPERITONEAL II—RETROPERITONEAL *a.* ANTERIOR TO AORTA AND VENA CAVA *b.* POSTERIOR TO AORTA AND VENA CAVA.

BY NORVELLE WALLACE SHARPE, M. D., ST. LOUIS, MO.

I. *Introduction*: With justice does the ureter command the attention of the surgical world; not only as an important factor in the urinary system, its anatomy, pathology, symptomatology and therapy; but so relatively unexplored has this duct been until within a score of years that to a very interesting degree it is now securing an individual consideration. Nor is this interest wholly anatomic, pathologic, etiologic nor therapeutic, for the ever present possibility of ureteric injury in abdomino-pelvic operative manipulations, or involvement in uretero-abdominal pathologic conditions invests the ureter with a clinical weight not inconsiderable.

We are indebted to Quain[1], Morris[2], Disse[3], Cunningham[4], Protopopow[5], Freund and Joseph[6] for much of our best general anatomic knowledge: to Margaroucci[9], Monari[10], Holl[7], Krause, Tandler and Halban[8], Waldeyer[11], Feitel[12] and Sampson[13], [14] for special anatomic research. Probably the pioneer work of Pawlik and Kelly has been most illuminative in the pathology, diagnosis and therapy of the upper urinary tract: while a distinct stride has been measured by the admirable work of Sampson in the distal half. Ureteric surgery owes its status largely to the work of Gluck, Zeller, Poggi[89], Tizzoni, Fritsch, Schopf[23], [24], Hochenegg, Tauffer, Fenger[17], Kuester[15], Robson, Mynter[16], Winslow, Emmett[19], Parvin[18], Van Hook, Bloodgood, Bovee[26], Cushing, Markoe and Wood[25]. A worthy bead-roll whose names will remain associated with this interesting field of surgical work.

II. *History.* One of the earliset operations, if no actually the pioneer case of ureteral anastomosis, was made by Simon, of St. Thomas' Hospital, London, in 1851, in an effort to anastomose the ureters into the rectum extraperitoneally. Nussbaum followed the method of Simon in 1876, also Smith in 1879. Most of the early attempts were made for the relief of vesical exstrophy. Gluck and Zeller were among the early experimenters on animals. In 1886 Schopf[23], [24], a German, and Poggi[39], an Italian, within a few days of each other performed an end-to-end anastomosis, though by different methods. Much experimentation on animals now developed in the years following this notable advance. Budinger, in 1896, endeavored on animals, to duplicate previous work, but with fatal results. Tizzoni and Poggi removed the entire bladder; a new receptacle was

*Read before the St. Louis Medical Society, September 1, 1906.

formed from an intestinal loop, and the ureters were implanted therein. At this period the Italian surgeon had easily outstripped his rivals. In 1892 the attractive technique of Van Hook was published. In 1897 Bovee in reporting a personal case, collected 12 cases of ureteral anastomosis from the literature, two of which must, however, be discarded. He materially modified the method of Van Hook. The following method classification of uretero-ureteral anastomosis, together with exponents of each method, tabulated by Markoe and Wood[25] is excellent:

I. Transverse end-to-end. { (a) Without support. Schopf Hochenegg, Cushing. (b) With support. Tauffer.

II. Oblique end-to-end. Bovee.

III. Invagination. { (a) Without support. (1) Ureter not split. Poggi. (2) Ureter split to invaginate. Mayo Robson. Winslow. (b) With support, Markoe.

IV. Lateral implantation. Van Hook, Kelley, Emmett, Doherty.

No inconsiderable ingenuity has been displayed in the effort to overcome the hiatus caused by an excessive loss of ureteral substance. Thus Bovee[26] based upon successful experimental work on two dogs, advises dislocation of the kidney downward, with suturing in its new bed subsequent to the completed anastomosis. Monari believes that the ureter may be attached to the abdominal wall under considerable tension, and when time has produced the required length, a lateral anastomosis may be attempted. Rydygier suggests implanting the severed ends on the abdominal wall and connecting them by a duct lined with skin; while Van Hook would elevate a flap from the bladder, develop a diverticulum and so bridge over the space to the proximal end of the ureter.

At the close of this chapter of ureteral surgery none of these suggestions had been performed on man; and the choice rested between implantation into the bladder, bowel, or skin.

III. *Anatomy of the Ureter.*—For an exhaustive study of the anatomy of the ureter search must be made through various monographs which discuss the theme. The following points will, however, prove germane to the subject in hand, and will be helpful in the final analysis: The adult ureter ranges from 25 to 40 cm. in length, while the outside diameter may be said to be 3 to 4 mm.; yet the fact remains that both the outside diameter and lumen vary considerably owing to curvings and sacculations that are fairly constant. The course of the ureters is not regular nor symmetrical. So far back as 1869 Freund and Joseph[27] showed that the left ureter is nearer the mid-line and as a rule nearer the uterus and its cervix. Crossing the common iliacs they are from 5.7 to 7 cm. apart; then following the pelvic curve they separate until 2 to 3 cm. below the iliacs, from 10 to 13 cm. intervenes; at line of the internal os, 9.8 cm. apart; on entering the bladder, 2.7

to 3.5 cm. apart. The distance between the external os and the right ureter, 2.5 to 3.3 cm.; the left ureter, 1.5 to 2.7 cm. Luschka[28] and Holl[29] give measurements which vary somewhat from the above, but agree as to the asymmetry ordinarily encountered. Quenu and Duval have suggested as a valuable landmark in identifying the lower ureter the bifurcation of the common iliac artery. The right ureter will be found 1 cm. external to the bifurcation and crosses the iliac vertically, while the left, ordinarily, is exactly upon the bifurcation. The ureter is composed of three layers. The outer coat is fibrous; the middle coat is muscular, whose thin smooth longitudinal folds manifest some tendency to stratification; the intima is mucous. The muscular coat, inducing a fairly rythmic peristalsis, is assisted by the force of gravity in establishing the cloacal function of the ureter. Waldeyer[30] has directed our attention to the fact that certain longitudinal bundles extend from the bladder out on the ureter. These are united by connective tissue, and separated from the ureter proper by a space which he considers a lymph-space. This sheath ranges from .5 to .75 mm. in thickness, and extends within the ureter from 3 to 4 cm. Disse, however, claims that these bundles do not arise from the bladder, as might be inferred, but from the ureter, and thinks it probable that their hypertrophic condition, together with the subjacent space, follows vesical contractions exerting traction on the outer ureteral coat. There is, in addition to this sheath of Waldeyer, a second fibro-muscular covering which, starting upon this structure and somewhat intimately blending with it, continues upward. Between this sheath and the ureter proper are found fine fibrous fascicles and adipose tissue, which as has been suggested by Sampson may subserve the function of a cushion protecting the ureter. It is a moot point as to whether true lymphatic spaces exist in this tissue. Sampson has also directed attention to the contractile mobility of the ureter within this sheath, its protective influence against inflammatory and malignant extension processes, and that within its embrace is found the periureteral arterial plexus. The lymphatic system is well developed and found within the different layers. The blood-supply of the ureter is drawn from branches of the renal, spermatic, utero-ovarian, internal iliac, inferior mesenteric, middle hemorrhoidal and inferior vesical arteries; while its veins, with apparently no prevailing rule, empty into neighboring vessels. Disse has shown that the pelvis of the kidney draws its blood-supply from a branch of the renal artery which courses down over the abdominal ureter; this section also derives nourishment from the spermatic. The pelvic section owes its main supply to the middle hemorrhoidal and inferior vesical arteries. In general it may be noted that these trunks parallel the ureter, to which they are attached by connective tissue. From these parallels arise at comparatively frequent intervals branches which, piercing the muscularis, still further divide within the intima into longitudinal sub-branches found fairly

constantly from the kidney to the bladder. Capillary systems to the epithelium and muscularis are the terminals of the arteries of the propria. From these systems the venous current is carried through a plexus, largely longitudinal, inside the muscularis. This venous plexus of the intima empties into channels within the adventitia, which parallel the arteries. Probably the most valuable of our anatomic assets of comparatively recent acquisition is the periureteral arterial plexus, whose orientation has been so felicitously accomplished by Sampson.[31] He has shown that from the aorta, the renal, ovarian, iliac, uterine, etc., arteries arise branches which may be styled uretero-subperitoneal arteries. These arteries ordinarily divide into two branches; first, an ureteral branch which helps to form the periureteral arterial plexus; second, a subperitoneal branch, which supplies the tissue contiguous to the ureter.

1. The ureteral arteries on reaching the ureter divide into ascending and descending branches, both paralleling the ureter and united to it by a loose fibrous tissue; a free anastomosis exists between the ascending and descending sub-branches. Thus, enveloping the ureter, is found a longitudinal arterial system, whose offshoots abundantly anastomose, extending from the kidney to the bladder. From these large trunks smaller branches arise which imbed themselves somewhat more deeply in the perimuscular fibrous tissue of the ureter than do the stems; and these, too, anastomose, thus forming with the main trunks a periureteral arterial plexus extending the entire length of the ureter up over the pelvis of the kidney and still accompanying the ureter as it pierces the bladder-wall. From this plexus still smaller vessels arise which penetrate the walls of the ureter; and yet other channels are found which, leaving the ureter, supply the adjacent tissues, and even these may anastomose with branches of other vessels supplying these parts.

2. The subperitoneal divisions of the uretero-subperitoneal vessels supply the tissues adjacent to the ureter and also, in places, the peritoneum. These may anastomose with each other and with branches from neighboring vessels including branches from the ureteral plexus, and thus may serve as a source of nourishment to the ureter. And yet other sources exist; for the uterine and vesical arteries of one side anastomose with those of the other, and in addition there is a free anastomosis between the uterine and ovarian arteries; and again the branches of the latter anastomose with branches from the renal. The periureteral arterial plexus thus is shown to receive its blood-supply from definite ureteral arteries, and may be nourished indirectly through the anastomosis of these arteries and branches from the plexus itself with the branches of vessels supplying the tissue circumjacent to the ureter.

Sampson has also shown that in the dog the ureter will withstand extensive manipulation even to stripping with the finger nail, or free-

ing throughout its entire length, and no untoward effect will follow provided a sufficient number of nutrient vessels remain intact to preserve the integrity of the ureter. [Of interest at this point is the record of Margaroucci[32] that he isolated the entire ureter in ten dogs; in none necrosis followed. He, too, explains this fact by the existing arterial supply with its numerous anastomoses. He claims that the supply from the renal artery alone is almost sufficient to nourish the entire ureter. Durante[33] accomplished the same feat on a woman, where the ureter was involved in a gigantic cystadenoma of the broad ligament.] And on the other hand manipulation which destroys the periureteral arterial plexus even though far less severe than in the former instances, will as a rule, so impair the vitality of the ureter that necrosis will supervene. He concludes that when the integrity of the ureter is impaired, as by malignant invasion, and choice remains, resection with end-to-end anastomosis or a vesical implantation is preferable to any method which demands a stripping so severe as to emperil the function of the periureteral arterial plexus.

IV. *Indications for Ureteral Anastomosis.*—The indications for an ureteral anastomosis are sufficiently obvious to justify the omission of special narration and discussion. In brief: 1. Any condition in an operative attack within the abdomino-pelvic area which necessitates an interruption of the continuity of the ureter will demand consideration for the restoration of the integrity of the urinary channel. 2. Operative casualties occurring within the abdomino-pelvic area which seriously impair or destroy the continuity of the ureter. 3. Any pathologic condition existing in the abdomino-pelvic area which so encroaches upon the ureter, whether by extension or pressure, that its function is seriously handicapped or destroyed.

These three classes will be found to include the majority of cases coming under observation. Pathologic conditions associated with calculi, fistulas, etc., are largely of collateral importance. The more commonly employed means for solving the difficulty have been implantation in bowel, bladder, or skin, and uretero-ureteral anastomosis. Nephrectomy of the crippled side should, with justice, be definitely eliminated from the list of restitutional methods, for the impaired ureter is neither restored nor so transferred that its cloacal functionation may continue; and in addition the kidney, which at this point in the patient's career has but a collateral significance, is ablated. As well might one class an amputation following fracture as a restitutional measure. Ligation of the proximal end of the ureter with induced hydronephrosis and subsequent cessation of nephric function (corroborated by the experimental work of James[40]) should also be excluded; for while the operative work is obviously less perilous than a primary nephrectomy, the end result is analogous—the patient is deprived of the use of his kidney. But this analogy is not complete, for it is impossible to state the actual effect upon the organism when

a kidney is thus abruptly thrown out of functionation and an infection atrium may be found existent at any point between the kidney capsule and the ligature encircling the distal end of its ureter. That the remaining kidney may be seriously crippled,—indeed, absent; that such conditions are all too frequently not ascertained previous to an abdominal operation; that it is most difficult to obtain prompt and exact information in the stress of so serious an operative casualty as a cut ureter, when time is priceless, seem to be statements of facts so vitally patent as to demand no further discussion, yet that imperatively indicate restitutional rather than destructive surgical measures. Of these various restitutional measures, we are, in this discussion, concerned with but the last,—ureteral anastomosis.

V. *Methods.*—Consideration of the methods scheduled in Section II will show that the general plan of procedure does not vary in any vitally essential detail.

In Groups I. and II. Apposition of extremities is direct, transverse or oblique, with or without support.

Group III. Apposition of extremities is by direct invagination, with or without splitting of segment, with or without support.

Group IV. Apposition of the extremities by lateral invagination, without support.

In Groups I. and II. Outer, middle and inner coats come into direct contact with their several fellows of the other segment.

In Groups III. and IV. The middle coats do not appose each other, but contact is permitted between the outer sheath of the male segment and the inner coat of the female, save when the outer sheath of the male segment has perchance been liberally sacrificed,—it then may be assumed that the muscularis of the male segment would be brought in apposition with the intima of the female. A modified Jobert's invagination suture seems to have been most commonly employed.

VI. *Personal Work.*—It may be readily conceived that a lateral spinal deflection would so seriously alter ordinary anatomic relations that any one of these excellent methods would prove technically difficult, if not actually impossible.* And again so large a section of the ureter may be lost, whether as a result of pathologic involvement or surgical intervention, that here also a similar difficulty, or impossibility, would be confronted. With these matters under consideration,

*Cognate to these personal statements are the observations of Bologna (III Cong. Dell' Ass. Nazionale dei Med., 1905). Among widespread changes developed concomitant with, or sequent to, a scoliosis, he notes that the kidney also suffers, the one on the invaded side being sometimes laterally compressed between the vertebral column and the chest-walls, while the kidney on the concave side hypertrophies. The contracted psoas may so close the lumen of the ureter as to develop an hydronephrosis.

and in search of a method that might prove efficacious, in 1900 was devised and performed on two dogs the lateral invagination of the proximal end of one ureter into its fellow. In my "Data of Experiments" this procedure was designated "Intraperitoneal trans-uretero-ureteral anastomosis." The first point to be oriented was, Is the conception an anatomic possibility? the second, Is it a physiologic success? The following notes (heretofore unpublished) show:

Experiment I.—Nov. 26, 1900. A small mongrel dog was anæsthetized, the left ureter, through a median incision, isolated, divided, the lower segment ligatured and dropped, the upper clamped; the right ureter isolated, a suitable longitudinal incision made, a modified Jobert's invagination suture (fine silk) placed in anterior face of proximal extremity of left ureter, the mesentery perforated close to its root and at an appropriate level, and the left ureter drawn through the longitudinal incision of the right, by means of the two suture ends which were then caused to transfix the three coats of the right ureter below the lower angle of the longitudinal incision. This suture was tied, also three others, one inserted at the upper angle formed by the junction of the ureters, and two, to snugly close the incision, above the junction, which had been made a trifle too long. The lines of junction were covered by a fold of mesentery appropriately sutured.

No special postoperative occurrences. The dog lived eighteen hours. Autopsy showed a competent anastomosis, with no leakage nor ballooning of either ureter or kidney pelvis; no evidence of peritonitis. There was urine in the bladder. The mercurial manometer showed that the anastomosis suture lines withstood up to a pressure of 60 mm. of mercury, at which point leakage followed.

Experiment II.—Dec. 13, 1900. A small mongrel dog was anæsthetized and again the proximal end of the left ureter invaginated laterally, through a longitudinal incision, into the right. The technical details of this experiment differed in no essential from those noted in *Experiment I.*, save that no additional sutures were required to close the longitudinal incision, and two additional sutures were inserted laterally at the spread of the longitudinal incision, made by the inserted ureter, in order to more snugly approximate the union. The mesentery was sutured over the anastomosis. The dog lived forty-eight hours. Autopsy showed a competent anastomosis with no leakage, nor ballooning of either ureter or kidney pelvis; no evidence of peritonitis. The bladder contained urine. The mercurial manometer showed that the anastomosis suture lines would withstand up to 50 mm. of mercury, at which point leakage occurred.

These experiments were carried out under adverse conditions, in that facilities were not at hand for suitable postoperative care of the dogs. After consideration of the autopsy findings, of which the essentials have been given, both Dr. Budgett (late professor of Physiology, Medical Department, Washington University), who most kindly assisted me and to whom my thanks are due, and I were strongly inclined to the belief that death followed in both experiments from these conditions rather than from any factor directly attributable to the operations.

Conclusions.—I. These experiments have proved that an intraperitoneal trans-uretero-ureteral anastomosis is an anatomic possibility.

One dog lived eighteen hours, the other forty-eight hours; within these brief periods union sufficient to withstand up to 60 mm. and 50 mm. (mercurial manometer) respectively had been secured. Neither hydronephrosis nor hydro-ureter was in evidence. Urine was within the bladder. It would seem, therefore, even within the limitations above noted that

II. An intraperitoneal trans-uretero-ureteral anastomosis is a physiologic success.

These experiments were not recorded in the literature and nothing further was attempted along this line of research until March, 1906, when the following procedures were devised and executed on the cadaver. The reasons for altering the above plan of operative attack were, in brief, that it was apparent that if a technique could be constructed that would more nearly protect the ureter from injury and from involvement with other abdominal structures, and in addition conserve and perchance add to its normal blood-supply, a distinct stride in advance would have been measured. These conclusions were based upon a not more than conventional comprehension of the blood-supply of the ureter. They were, however, confirmed when the masterly exposition of the blood-supply of the ureter by Sampson was given to the surgical world. The technical difficulties of the work, hereinafter described, were greatly augmented by the fact that the cadaver subject was not less than eighteen months old and had undergone several periods of drying and moistening, with the result of both tissue rigidity and brittleness.

Experiment III.—Through the anterior abdominal wall (which had previously been opened in the mid-line) the field was so cleared by laying aside obscuring structures that the courses of the ureters were developed. A suitable longitudinal incision through the peritoneum over the right ureter, and its isolation, above the promontory of the sacrum, were made. Retracting the ureter laterally, a retroperitoneal dissection, largely by the finger, but assisted occasionally by the handle of a scalpel, was made toward the mid-line, penetrating in the layer of connective tissue between the inferior vena cava and aorta posteriorly and the peritoneum anteriorly, until the left ureter was reached and identified. After liberating this for a sufficient distance it was brought across to its fellow, incised, the distal extremity released, and a lateral invagination through a longitudinal incision in the right ureter was made as detailed in Experiments I. and II. When the anastomotic area was released and the peritoneal edges of the longitudinal incision approximated, the entire field of manipulation was found to be wholly retroperitoneal. The difficulty of accomplishment was not excessive, and the ureters showed no evidence of undue tension.

Experiment III. proved that a retroperitoneal trans-uretero-ureteral anastomosis is an anatomic possibility.

Realizing, however, that a more direct route might be available, and that various conditions, such as a lordosis or a relatively extreme depth of the lateral abdominal fossæ, would make such a route highly valuable, the following procedure was performed:

Experiment IV.—The sutures of the above noted anastomosis were

liberated and the two ureters replaced in their normal positions. Through the same longitudinal incision over the right ureter a dissection was made toward the mid-line and passing between the vertebral column posteriorly and the vena cava and aorta anteriorly the left ureter was reached and again withdrawn to its fellow and again invaginated in the existing longitudinal incision by the method followed in the former efforts. When the anastomotic area was released and the peritoneal edges of the longitudinal incision approximated, the entire field of manipulation was found to be wholly retroperitoneal. In this instance, also, the difficulty of accomplishment was not excessive. It was also readily seen that owing to the shorter route traversed the ureters, whose liberated areas had not been extended over those of Experiment III., had gained demonstrable laxity.

While retroperitoneal trans-uretero-ureteral anastomosis, whether anterior or posterior to vena cava and aorta, is admittedly more difficult of accomplishment than intraperitoneal trans-uretero-ureteral anastomosis, yet it must be conceded that owing to the shorter hiatus to be bridged, with proportionately less disturbance of the ureters and their blood-supply, their probable subsequent vitality and power of functionation are enhanced in conformity with the postulates of Sampson. It is also probable that owing to the replacement of the ureters within beds which are closely allied to, if not in fact actually identical with, their normal surroundings, the interference with their blood-supply will be reduced to the minimum; and the possibiilty of nourishment to be derived from contiguous connective tissue and the peritoneal covering must not be ignored.

Beyond the technical difficulties inherent to such manipulations, and the necessary time involved, possibly superimposed upon other operative measures (both of which may, however, be diminished by practice), the query which will, in all probability, most readily spring to the minds is, whether or not sufficient pressure will be exerted by the aorta and vena cava to materially interfere with the patency of the transferred ureter (or the anastomotic area itself, if it should happen to be the point of contact). It is conceded that Experiments III. and IV. prove merely the anatomic possibility of a retroperitoneal trans-uretero-ureteral anastomosis, respectively ante-aorto-cavic and ante-vertebral. Suitable material has not as yet been secured for demonstrating if these procedures be physiologic successes. But in support of such an hypothesis may be adduced the well-known physiologic fact that a tube with well-defined mural structure which exhibits intratubular pressure, whether constant, periodic or occasional, is able to maintain its patency though extramural pressure be maintained. The rectum clamped between the sacrum and an augmenting pelvic fibroid is a fairly familiar example; the vena cava and the left common iliac vein fixed between the vertebral column and the aorta and right common iliac artery, is another. These examples are specially interesting for in the former an intratubular pressure exists only during evacuation of, or when the rectum is filled with, fæces; and in the latter it is known that dependent largely upon intrathoracic conditions the in-

tracavic pressure varies from an actual negative to but a few millimetres of mercury, while the diastolic and systolic aortic pressures presumably somewhat exceed the brachial pressures, which are 75 to 100 and 100 to 150 mm. respectively. In other words, the patency of a compressed tube may remain even though the constricting force be in excess of its own intratubular pressure. The intraureteric pressure reaches 60 mm. of mercury, beyond which an hydro-nephrosis threatens.*

While from a purely controversial standpoint it might be inopportune to allude to the increase of ureteric pressure which follows when a constricting force is permitted to exert itself, yet clinically we are compelled to concede that this increase of intratubular pressure but enhances the probability of maintenance of patency.

In the final survey of the literature of ureteral surgery before closing this article, it was discovered that the proceedings of Experiments I. and II. carried out independently by myself in November and December, 1900 (not hitherto recorded), had been in all essentials paralleled by the following workers:

1894. Boari and Casati[44] tried uretero-ureteral anastomosis on the dog on eight occasions. The mesosigmoid was perforated; approach was gained both by the anterior abdominal route and also a lateral extraperitoneal route, of which close details are lacking. All dogs, save one, died within two or three days after operation. This one died from peritonitis with urinary infiltration on the eight day. The anastomosis had yielded at one point.

1895. Monari[36] followed the same method on the dog 13 cm. from the bladder. "At the end of a certain time," the dog was killed; stenosis of the ureter at point of penetration of the mesosigmoid found; no stenosis at site of anastomosis; hydro-ureter and ballooning of the kidney pelvis existed. He concludes that the operation may be made in man, in certain cases of urinary fistulas, in place of more serious procedures, and that no danger would follow if the ureter he replaced in "its fatty capsule."

1896. Wissinger[56] presented before the Medical Society of Hamburg "a beautiful specimen," but so far as the literature shows failed to mention either source or method.

1905. Freund[37] records that he implanted, in a bitch, the proximal end of an ureter in a fallopian tube; the other end of the tube was then connected with the bladder. Mention is made that a similar plan was followed by D'Urso and de Fabii. After stating that trans-ureteral anastomosis had been suggested as a possibility by Kelly, McMonagle and Sampson, he describes having cut a ureter in a dog; its central end was drawn by ligatures through the mesentery, and laterally attached by two sutures to its fellow; six silk sutures were utilized in completing a lateral anastomosis.

1905. Bernasgoni and Columbino[38] performed uretero-ureteral anastomosis on ten dogs, both near the bladder and in the lumbar region. They believed that they were the first to successfully penetrate the mesentery. They direct attention to the fact that in the dog so loose is the posterior perito-

*Note that in Experiment I union was secured, in 18 hours, that withstood up to 60 mm. mercury, and in Experiment II union was secured in 48 hours, that withstood up to 50 mm. mercury. These interesting results are but another document in evidence that points suggestively to the value of these procedures.

neum that the ureter is furnished with what is practically a mesoureter; this, in particular, holds in the vicinity of the bladder. Eight of their cases were near the bladder, lateral implantation between two retention sutures; continuous sutures were employed, which were covered by a Lembert of the peritoneum. Three dogs died; five perfect results determined at end of three to four months. Two cases were transmesenteric at height of the umbilicus; ureters were found over the psoas, and anastomosis was made by the former method, save that the mesentery was perforated. The first dog died of peritonitis on eight day; no leakage noted. The second survived. Autopsy at three months; result excellent.

So far as known the work detailed in Experiments III. and IV. has not been duplicated.*

VII. *Chronology.*—The following chronologic table of the development of the surgery of the ureter outlines in sequence the rather more essential steps that have led up to the present-day work in uretero-ureteral anastomosis. It also includes the latest experimental work, so far as known:

1851. *Simon.*—Extraperitoneal uretero-rectal anastomosis.
1876. *Nussbaum.*—Extraperitoneal uretero-rectal anastomosis.
1879. *Smith.*—Extraperitoneal uretero-rectal anastomosis.
1886. *Schopf.*—Transverse, end to end, without support.
1886. *Poggi.*—Invagination, end within end, without support.
1892. *Van Hook.*—Invagination, lateral, without support.
1894. *Boari and Casati.*—Intraperitoneal trans-uretero-ureteral anastomosis,—dog.
1895. *Moñari.*—Same method,—dog.
1897. *Bovee.*—Oblique end to end.
1900. *Sharpe* (Nov. and Dec.).—Intraperitoneal trans-uretero-ureteral anastomosis; lateral invagination,—dog.**
1905. *Freund.*—Implanted the proximal end of ureter in a Fallopian tube. The other end of tube was then implanted in the bladder. (States that D'Urso and de Fabii had also accomplished the same.) In addition records a lateral intraperitoneal trans-uretero-ureteral anastomosis,—dog.
1905. *Bernasgoni and Columbino.*—Intraperitoneal trans-uretero-ureteral anastomosis,—dog.
1906. *Sharpe* (March).—Retroperitoneal trans-uretero-ureteral anastomosis, lateral invagination,—cadaver.
(a) Anterior to aorta and vena cava, posterior to peritoneum.

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*I desire to acknowledge, with appreciation, the courteous assistance and valuable cooperation, tendered me by Dr. Robert J. Terry and Dr. Vilray P. Blair, respectively Professor of Anatomy and Associate Professor of Anatomy in the Medical Department of Washington University.

**Not hitherto published.

(b) Anterior to vertebral column. Posterior to aorta and vena cava.*

VIII. *Conclusions.*—

I. The blood-supply of the ureter is ample, of which probably the peri-ureteral arterial plexus is the most essential factor.

II. Operative procedures which conserve the blood-supply, in particular the peri-ureteral arterial plexus, are ordinarily satisfactory.

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III. When the integrity of the ureter is impaired, restitutional rather than destructive surgical measures should be followed.

IV. Of which restitutional measures the various methods of uretero-ureteral anastomosis are recommended.

V. Intraperitoneal trans-uretero-ureteral anastomosis is an anatomic possibility; it is also a physiologic success.

VI. Retroperitoneal trans-uretero-ureteral anastomosis, whether anterior or posterior to the aorta and vena cava, is an anatomic possibility. (Further experimentation is essential in order to prove that it is a physiologic success.) The route followed is the shortest path between the two ureters. The technical difficulties are not excessive. It is highly probable that this method impairs the ureteric blood-supply less than any other method in vogue.

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*Of very great interest, in connection with the problems incidental to wounded ureters or such other conditions that may tempt the operator to find a solution in a nephrectomy, is the work of Carrel, Floresco, Guthrie and others in organ-transplantation. They have most ingeniously devised and successfully executed plans by which the kidney, heart and other organs, removed from their normal site and transplanted elsewhere, have continued functionation. The three natural subdivisions of auto-transplantation, homo-transplantation and hetero-transplanation—have received consideration and experimental work is of record. This suggestive research is pregnant with possibilities for future development. For details see:

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INDICATIONS FOR MEDICAL TREATMENT IN DISEASES OF BILIARY PASSAGES.*

BY SCOTT P. CHILD, M. D., KANSAS CITY.

It is realized very clearly today both by the internist and the surgeon, that the gall bladder and associated biliary tracts, like the vermiform appendix and fallopian tubes, are subject to a variety of inflammatory and pathological conditions, and that their existence indicates treatment of some kind. Furthermore, both from the intense suffering and grave danger during a biliary attack, the treatment indicated is often immediate and heroic. Upon the correct and early advice of the attending physician as to the nature of the treatment depends the comfort and often the safety of the afflicted individual.

Allowing that medical treatment, if curative, is to be preferred to an operation, which always has its attendant dangers, it is on the other hand absolutely criminal for a physician to treat recurrent attacks of disease of the gall bladder and its passages, by symptomatic and theoretic remedies until a gallstone impaction, an acute phelegmonous cholecystitis, general peritonitis, or malignant disease supervene, at which stages surgical treatment if resorted to may avail nothing.

As a means of general classification it may be said that these structures are subject to three classes of disease: 1. Inflammations. 2. Cholelithiasis. 3. Tumors; (a) benign; (b) malignant.

The profession universally acknowledges that the third of this group, if amenable to treatment at all, can be helped or cured only by operation. Of the first two, however, there still seems to be a division of opinion as to treatment, or at least many medical men are loath to yield theories long held on biliary therapeusis.

Today even with absence of results, medical treatment is quite commonly resorted to by the general practitioner; the drug or remedies being given with the hope that if gallstones, or a plug of mucus or membrane, be present, they may be advanced on through the biliary passages into the bowel, or that the gallstones may be rendered in solution. Still other remedies are used for purposes of antisepsis. The most careful experimentation and observation have failed to secure evidence pointing to solution of gallstones by the various drugs and chemicals used. And it is doubtful if more than a very slight peristalsis is set up in the walls of the bile ducts by saline and other cathartics. Of the remedies which have been used may be mentioned the alkaline waters, ether, chloroform, turpentine, olive and other oils, belladonna, salicylic acid, salol and succunate of soda.

The theories upon which the alkaline waters, such as Carlsbad,

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vichy, and the sulphate, corbonate and phosphate of soda, are administered, are many and various. One being that the bile in its normal state is alkaline and, when so, holds the cholesterin salts, the basis of gallstones, in solution, but on the reaction changing, the cholesterin crystals are precipitated and thus form calculi. Hence these alkaline waters in large quantity should, theoretically at least, by rendering the bile again alkaline, redissolve the stones. Another theory is that the amount of bile is increased by such drugs. According to many experiments, and especially those of J. Glass, as cited by H. C. Wood, and those of Dr. Brockbank, quoted by Mayo Robson, there is no evidence that any such changes occur. The purpose, however, which these waters do serve, as does pure water of any kind, is to render, from the large quantity introduced into stomach and bowels, a less inflamed condition of the mucous membrane, and thus indirectly effect the lining of the biliary passages. In addition they increase the fluidity of the whole circulatory system which effects the blood vessels of the biliary tissues in just the same manner as they effect the blood vessels of other tissues of the body. But even with such results the calculi are not forced on from the ducts, nor are they by such means rendered solvent.

Ether, chloroform and turpentine, when given in safe doses, are afterward found in such small quantities in the gall bladder that they possess no power to dissolve gallstones. Salicylic acid and salol, so far as they render antiseptic the duodenum, to that extent lessen the further invasion of bacteria into the bile passages. But they do not of themselves, as antiseptics, act upon or destroy bacteria in the gall bladder and its ducts.

Belladonna and its alkaloid, atropine, possess the property of overcoming muscular spasm which exists in all colic, but the amount of relaxation, (muscular) occuring in the fibers of the bile passages at such a time does not produce the onward passage of any stone there held.

Olive oil is quite frequently resorted to by both physician and laity, with the firm belief that it possesses the power of dissolving gallstones in the gall bladder and its ducts. It is admitted that gallstones placed in pure olive oil or cottonseed oil, without the body, undergo solution to a greater or less extent. But neither chemical results nor the physiology of fat digestion and assimilation indicate any reason for their use in biliary disease. Oils are digested and absorbed as fat, or as glycerine and fatty acids, by the lacteals of the lymphatic system and carried to the thoracic duct, whence they pass on to the pulmonary circulation and are distributed to the different tissues and organs of the whole body. This is a physiological fact, and on investigation no concentration of fat is found in the biliary structures after the ingestion of large quantities of oil. Chaffaud who

experimented upon the lower animals by introducing oil into their stomachs, was unable to detect a trace of it afterwards in gall bladder or bile ducts. In the hands of Osler, and many other clinicians, whose experience covers many cases, its use has been barren of results.

Knowing that certain types of individuals are more prone to gall bladder trouble than others, prophylaxis should be urged, especially among dyspeptics and childbearing women. This should include a mixed and restricted diet, containing little fat and carbohydrates, though plenty of proteid, and an abundance of plain or alkaline water. Further, there should be freedom at all times of any pressure or constriction over the liver, gall bladder or stomach regions. And exercise such as gymnastics, special calisthenics, horseback riding and swimming, should be freely indulged in.

During an attack of biliary colic, symptoms, especially the pain, must receive attention. Hot fomentations locally applied, with hypodermics of morphine and atropine are probably indicated above other remedies. At times ether and chloroform by inhalation or by the mouth seem to give better relief.

My own experience, in several cases of recurrent attacks of gall bladder disease, some of which have had a history dating back fifteen or twenty years, is that medical treatment is not curative, and cannot be proven to be even palliative. But, further, it only prolongs a forlorn hope in the afflicted, while rendering their condition more and more dangerous from possible if not probable suppuration or malignancy while not infrequently a mental condition supervenes as hypochondriasis or even insanity.

Hence from the standpoint of internist or surgeon, the only treatment to be advocated, on recognizing the existence of biliary disease, beyond the acute catarrhal type, is one of the surgical intervention. Thus, and thus only, can a cure be expected, and can the many unfortunate and often fatal sequelæ be avoided.

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A METHOD OF RADICAL RELIEF OF CASES OF DEAFNESS LONG ABANDONED AS HOPELESS: ILLUSTRATED BY REPORTS FROM ACTUAL PRACTICE.*

BY ROBERT BARCLAY, M. D., ST. LOUIS, MO.

(*Continued from page* 617, *April* 1907.)

More Than Twenty Years.—This lady, thirty-three years of age, had been deaf from childhood, one of her most remote recollections being that of having been told when a little girl, by her teacher, "that she didn't hear well, and that she ought to go and get her ears fixed by a doctor!" She, however, became fully aware of this infirmity as early as when twelve years of age; and she noticed that this gradually grew worse.

With either ear, she could hear a very loud voice at about twelve feet, and loud whisper at about one foot distance. The forty-eight-inch watch was inaudible by air-conduction.

Tested by air-conduction for the separate tones of the five octaves comprising the human voice, and the two octaves just below this, the variations showed, that the lowest octave was inaudible to both ears. The next octave was heard by the right ear, its upper part only being heard by the left. The duration of hearing in the right ear, however, for this, was reduced to 50% of the normal. And the defect was marked all along the natural auditory scale.

Although popular indications pointed to this as a probable so-called mixed or complex case of fixation of the auditory conducting mechanism, with impairment of nerve function—apparently an ordinary and hopeless case of middle-ear sclerosis—our own new test offered hope of appreciable relief; so operation was proposed; and the proposition being favorably accepted, the operation was done, first, upon the left ear, and, then, four weeks later, upon the right.

Twenty days after the operation upon the left ear, a repetition of the former test showed that the second octave, hitherto inaudible to this ear, was now heard by it for about 82% of the normal; the third octave, a gain of 27%; the fourth octave, a gain of 10%; the fifth octave, a gain of 35%; the sixth octave, a gain of about 6%; and for the seventh octave, or upper one of the human voice, a gain of about 3%.

The several tests made upon the other, the untouched right ear, to note any changes that might have been affected there, showed a gradual improvement: the last testing before its own operation being made about twenty-four hours after that done upon its fellow of the

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left side. It was then found, that the untouched, right ear could hear the second octave a gain of 45%; the third octave, a gain of about 20%; the fourth octave, a gain of about 20%; the fifth about as before; the sixth, a gain of about 21%; and for the seventh octave, or upper one of the human voice, a gain of about 12%. Twenty-five days after the operation upon the second, or right ear, the tests showed the hearing to be as follows:

RIGHT EAR.			LEFT EAR.		
Octave.	Gain Since Last Test.	Gain Since Orig'l Test.	Octave.	Gain Since Last Test.	Gain Since Orig'l Test.
2nd.	0	45	2nd.	4	86
3rd.	10	30	3rd.	0	27
4th.	6	26	4th.	6	16
5th.	13	13	5th.	0	35
6th.	12	33	6th.	16	22
7th.	29	41	7th.	23	26

Besides these analytical tests, the hearing for all low-pitched tones, of whatever character, and of the human voice, particularly that of men, was found greatly improved. Others, as well as the patient, noticed the improvements. The noises in the head were not so distressing; the feeling of tension in the ears had been relieved; the naso-pharynx was no longer troublesome; the eye-symptoms remained entirely relieved; and hearing was still steadily improving; when, with parting advice as to a proper daily nasal toilet for the old perforated septum, the patient was permitted to return to her distant home. After a short stay there, she, went for her usual summer sojourn to "The Springs," from which she wrote me expressing her satisfaction with the results of the operation, amongst other expressions, by the following: "I want to tell you, and I know you will be as pleased as I am to hear how much everybody thinks I have improved. At home, they all noticed a marked difference in my hearing, and they tell me the same thing here.—You can rest assured I lose no opportunity of sounding your praises. You would never let me thank you for all your goodness and attention, but I am sure none of your patients appreciated more what was done for them. My nose is in fine condition, and I have had no cold since I left you. I doctor it myself, every day."

In reply to a copy of a paper containing, substantially, the above report, extending down to the time of her return home, which was sent her several months later, she wrote as follows: "Thank you very much for the report, which I find most interesting, especially your description of my own case. I have no criticism to offer. You have told it all so exactly, as it is, without addition or substraction, that there is nothing for me to suggest.—You have my full and free permission to refer anyone to me. I shall always take pleasure in letting

others know of the benefit I have derived from your treatment. Different persons who were here last summer tell me they noticed the improvement in my hearing and want to know about you. I am sure your ears must burn sometimes—" *etc.*

". . . . . My eyes have had hard and constant work since I left you, but no return of the old trouble, thanks entirely to yourself."

Two years later, upon her calling at my office, I found that she could hear the Koenig's Rods 5,000 vibrations per second higher, and that the upper tone limit of hearing had been extended to a point upon the scale of the Dench-Galton Whistle, for the right ear, 1.4 and for the left 1.5, turns, higher than at any time before the operation upon her ears. Her eye and nose, were, as when last seen, and her hearing improving.

Upon her visiting me again more than six years after operation, it was found, that the lower tone limit of the right ear had been extended, and that she could readily hear the very lowest tone of the Dench tuning fork, the lowest normal tone limit. The left ear did not show this extension of range, and she was advised to get rid of a source of reflex irritation in her teeth. The eye and nose seem still as well as when she was first dismissed.

About seven years have now elapsed since the operation upon her ears.

Twenty Years or More.—This patient, an assistant claim agent, thirty-six years of age, consulted me one morning, for relief of sudden deafness o fhis only useful, — the left ear, vertigo, loud noises in both his ears, worse in "the good" or left ear, strange sound of his own voice in this ear, etc. The hearing of the right ear had been practically gone for twenty years or more; and up to the morning of my examination, his left ear had served him faithfully. There was no suspicion of lutic taint in the case. The diagnosis of acute exacerbation upon chronic catarrhal otitis media, with neurotic factors was not difficult; and as the case answered to the test above advocated,—as far as concerned the useless right ear, long abandoned as hopelessly deaf.—it was proposed, to resect the outer portion of its conducting mechanism at once, while attempting, by milder means, the relief of the other, or hitherto useful ear.

On the day before the operation, this right ear was tested with the following results: Hears: shouting noise only at several feet distant. Forty-eight-inch watch: unheard, even on pressure contact. Dench-Galton Whistle;— 1.1. Koenig's Rods; 35,000 vibrations a second. Tuning forks: C—2 (32 vibrations a second), by air-conduction—unheard; by bone-conduction, prolonged, and, placed on vertix, is heard better in the right than in the left ear. C——1 (64 V. S.) by air conduction, unheard; by bone-conduction, 30 seconds and so on.

My suggestion to the patient, that it might be as well, sometime,

to write out a few brief notes as to his own experience as an aural patient, both before and after his operation, evoked, later, the following, which I quote *verbatim*, thinking it may give a more just impression of his own estimate of the method above recommended, and adopted in his case:

"Since you operated on my right ear, I have been in such a happy state of mind, notwithstanding the fact that my left ear is in a diseased state, cannot withstand the temptation to further encroach on your valuable time, by inflicting on you this epistle, written in my humble way.

"First, I wish to express my heartfelt appreciation of the great benefit derived from the operation.

"Second; without an attempt or desire to flatter, must say candidly, that I marvel at your skill in restoring to usefulness, an organ that has been practically worthless, for a period of about twenty years.

"Third;—Thinking perhaps you desire to know them, will give, as briefly as possible, a summary of the facts in my case, as I recall them.

"Am thirty-six years of age, and from my earliest recollection have been troubled with my ears and throat, due, I presume to catarrh, which is so prevalent in this locality.

"When a mere child, I suffered greatly from ear-ache and tonsilitis. As time rolled by, the "ache" ceased, but noticed a pronounced deafness in my right ear, which condition has prevailed steadily until for the past eighteen or twenty years have depended mainly upon my left ear, which until—night, performed excellent service, permitting the pursuance of my daily avocation, social pleasures, etc., without pronounced inconvenience.

"Upon retiring, on the evening stated, noticed I could not hear so well as usual and the next morning was astonished and somewhat alarmed to learn that I could not hear the voice of my wife, advising me that it was time to arise and perform my usual chores preparatory to leaving my home for my office in this city.

"Could not understand her until she leaned over me and actually shouted. Not only was I deaf, but in addition suffered greatly from "headnoises" and an apparent fulness in both ears.

"Was greatly depressed; in fact my condition was alarming and I felt that relief of some thing must come quickly. I came at once to your office, and after a study of the case, you advised a surgical operation. . . . .

"The day following the operation, you removed the gauze and I heard clearly, not only your voice, but that of my wife and others who surrounded my cot at the hospital.

"Soon after you left, an attendant brought some word from the hospital physician, and as usual, leaned over me and shouted.

"The effect was startling and I implored him to "yell" no more,

as I could now hear. He did not know what to make of it and evidently thought I was jesting.

"On the second day succeeding the operation, you ordered me home, but to stop at your office *en route*. To test the condition of the ear, you repaired to an adjourning and telephoned. I heard distinctly not only your words spoken in an ordinary tone, *but when whispered*. I so remarked to your lady attendant, standing near, and she will, doubtless, verify my statement. . . . .

. . . "My hearing has improved and after you have treated the other ear, am hopeful that I may hear about as well as other mortals."

The ear upon which you operated was examined by a specialist about ten years ago, and was informed that I would never hear out of it again, as the drum-head was withered, thus effectually preventing the transmission of the sound-waves.

"In stating the above, have endeavored to give you the facts, merely as they are recalled, and will say emphatically, they are not enlarged upon or exaggerated, one iota," etc.

"Two years later, he wrote me as follows:

" . . . "My thoughts revert to that—morning—, when I arose, almost totally bereft of my hearing: . . .

"You will recall the removing of the "false drum-heads," which formed twice after the operation at the hospital; how we "stuck together" in our mutual determination to eliminate this feature of the trouble; . . . ; how you assured me, 'to have patience and stay with you,' for you were satisfied that you could eventually stop the "growths." You were right!—The "growths" was successfully killed, and my right ear, on which you operated, feels much better today than at any time *before* or *since* the trouble. You know, I complained so of headnoises, etc. The writer is practically all right in this respect; and, I can assure you, the relief is very gratifying. My left ear, still to be operated upon, vibrates, to some extent, the hearing from the right, causes a constant "ringing" and other "head noises" in left side of head. When you "do the necessary" and the operation is in any degree successful, as I have every reason to believe it will be, am satisfied my hearing will be improved greatly.

"Words are inadequate to express my gratitude for the benefit derived from your skillful treatment. Even you, as thoroughly conversant with the mechanism of the ear as you are, cannot appreciate the feelings of a "poor unfortunate" afflicted with a catarrhal affliction of the middle-ear, and what a relief to be freed from not only the deafness, but the terrible noises, *which are worse*.

"I am so thankful that you consented to operate upon me, for had you not done so, am satisfied I could not have endured the terrible agony which I suffered constantly.

"When you want to "fix" the left ear, say the word, and I am "yours."

"If you have other patients afflicted as I, and who are fearful as to the result of an operation, send them to me and I think they will "take heart," derive comfort, and have hope renewed by conversing with one who has been "through the mill," therefore capable of stating the *real* facts from *actual experience*, which beats theorizing by long odds.

Then follows indisputable evidence of the patient's satisfaction with the result of his resection—and this is too comical to withhold from intelligent *medical* brethren,—of course, *entre nous*—: "Every time I run across a deaf person, the first thing I say it: "Go see Dr. Barclay, right away, *quick!*— He is the man who can make you hear, if there remains anything in your head with which to hear."

Surely, the operation must have proved satisfactory to the patient, who, however overdemonstrative, felt impelled to tender such a huge and fragrant "bouquet," as this to his attending physician.

Operation on this patient's left ear was deferred several years on account of an unexpected nervous shock, due to the undeserved permanent rupture of his domestic relations and because of an entire change in his mode of living. Since this recent operation, on the left ear, however, the case has been still under professional supervision, for suppression of substitutive membrane tympani in this ear, which has re-formed several times. For this reason, and until this indication has been met, the detailed report upon this phase of the case is and shall be withheld.

With the ear first operated on,—the right ear, the patient has been able to hear elevated voice at twenty-five feet distance, and has had no return of his other symptoms, since the operation, which was done, upon this ear, more than five and a half years ago.

More than Twenty Years.—This married lady, thirty-three years of age, sought relief from purulent left-ear disease, and usual concomitant symptoms, which, she stated, had troubled her since babyhood—for more than thirty years.

Since earliest recollection, she had always been a sufferer from this.

With the affected ear, she could hear an ordinary small kitchen alarm clock at ten feet distance. All sounds, when heard, were indistinct in character.

From her own pew in church, twenty-two feet from the pulpit she could hear, and indistinctly at that, but a small part of what was said by her own pastor, with whose voice, in close conversation, she was wholly familiar. In ordinary conversation, she was frequently compelled to ask her friends to repeat remarks addressed to her.

Operation was advised and consented to.

The last visit made to me by the patient for formal report and for

personal inspection, was five months after the operation. At that time, her hearing was still improving, so that she could hear all preaching distinctly from her pew in church. In conversation she no longer had to ask her friends to repeat. The small, ordinary, kitchen, alarm clock, she could now hear from her rocking chair upstairs.—the sound having traveled all the way from the mantel piece downstairs through a doorway, twelve feet from it, then deflected to a right-angle, up a flight of twelve steps, along a landing six feet in length, again deflected to a right angle, through a side door, to her rocking chair, two or three feet away.

The noises, dizziness, headache, and discharge, which had disappeared with, or soon after, the operation, had not returned.

No return of any symptoms has been reported, although nearly nine years have now elapsed, since the time of the operation.

About Twenty Years.—This gentleman, thirty-one years of age, had "been more or less deaf for many years"—"It must be eighteen or twenty years," he said—"evidently from "catarrh."

"The deafness had gradually increased until," as he expressed it, "the right ear was practically deaf:" and he, "was unable to hear a conversation over the telephone in the right ear."

He was advised to submit to tympanic resection of his worse—right ear; which he promptly consented to do without delay.

Two days before operation, his hearing by the natural channels was as follows:

Right ear (the one to be operated upon): heard loud noise only, at one foot distance. A forty-eight inch watch was unheard by it, even upon pressure-contact. The Dench-Galton Whistle was heard at 1.1—and the upper tone limit for Koenig's Rods was found to be 5,000 vibrations a second below the normal. The duration of hearing by the natural channel, taken from Dench's and Hartmann's Tuning forks, may be presented as follows:

The two lowest octaves were inaudible. The lower tones of the third octave, or the lowest of the human voice, were heard about 18% of the normal. Lowest tones of the fourth octave about 37%. And so on.

The left, or untouched ear, before the operation on its fellow of the opposite side could hear, by the natural channel, ordinary voice and ordinary whisper at one foot distance. A forty-eight inch watch was unheard by this ear also even on pressure contact. The Dench-Galton Whistle was heard at 1.1; and the upper tone limit of Koenig's rods was found to be 5,000 vibrations a second below normal. The duration of hearing by the natural channel, taken with Dench's and Hartmann's tuning forks, may be presented as follows:

The two lowest octaves were inaudible. The lower tones of the third octave, or lowest of the human voice, were heard about 34%. Lowest tones of the fourth octave, about 37%, and so on.

Such was the state of the hearing two days before tympanic resection of the right ear.

The operation was begun under Chloroform anesthesia; and finished with cocaine hydrochlorate solution, locally,—the patient maintaining conversation throughout the local anaesthesia. In the course of the operation, immediately after the division of the incudo-stapedial joint, others in the operating room remarked that the patient himself spoke in a markedly louder voice.

Upon the second day after the operation, he could, with the ear that had been operated on, hear the forty-eight inch watch at one-half inch; upon the third day at three-quarter-inch distance; while, with the undisturbed ear, upon the corresponding days, he could hear the watch upon contact, and at one-quarter inch distance; this watch, before operation upon the right ear, being inaudible to both ears, even on pressure contact. Upon the third day after the operation, the patient's uncle volunteered the opinion that the patient heard much better and spoke louder than usual. Shortly after the operation, he discovered that he could hear more distinctly the rumbling and gongs of neighboring streetcars. On the eight day after operation, it was found that he could already hear with the operated ear, a somewhat elevated voice at thirteen feet; whereas, before operation, he could hear a loud voice only at one foot distance. The Dench-Galton Whistle was now heard with the operated ear, 0.2 higher than before the operation, a trifle above the average normal limit. The range of hearing for Koenig's rods had been elevated 5,000 vibrations a second, clear to the normal. With the Dench's and Hartmann's tuning forks, it was found, that this ear could now hear as low as the middle of the very lowest octave. All of the second octave was now audible in 54 per cent. of normal reaction. Before the operation, these two octaves were entirely unheard by this ear. The lower tones of the third octave, or lowest of the human voice, there was a gain of hearing of 29 per cent. For the lower tones of the fourth octave, there was a gain of 8 per cent. For the fifth octave, a gain of eight per cent. For the sixth, a gain of 23 per cent.; and for the seventh, or upper octave of the human voice, a gain of 26 per cent.: as it was found a trifle more sensitive than the average normal at this pitch.

Upon the thirteenth day after the operation upon the right ear, the left one was tested as before, when it was found that a slightly elevated voice was heard at thirteen feet by it, somewhat better than by the right ear. The forty-eight-inch watch, inaudible by both ears before the operation was now heard by this ear at a distance of one-half-inch. The Dench-Galton whistle, which upon the fifth day after the operation had been heard considerably above the average normal 0.2 higher than with the operated ear, was now heard at the normal. The upper tone limit of hearing for Koenig's rods, however, had remained unchanged at 5,000 vibrations a second below the average

normal. Tests with the Dench's and Hartmann's Tuning forks showed that this ear could now hear down in the second octave, altogether inaudible before the operation at 41 per cent. of the normal: and for the seventh, or highest octave of the human voice, a gain of 9 per cent was found.

The improvement in this patient's hearing has been reported to me as remarkable by a number of his friends.

This report, demonstrating, by the results of these ordinary objective testing methods, the relief afforded, may seem the more nearly complete, if closed with an extract from a statement made by the patient himself, as a summary of his own impressions as to the results of the operation in his own case; he says:

"As you are aware, I have been more or less deaf for many years, the exact number, I cannot state, but it must be eighteen or twenty years. This deafness, supposed to be the result of catarrh, had gradually increased until the right ear was practically deaf. The operation which you performed upon this ear some weeks ago, in which the drum-head was removed, has increased the hearing of the right ear very materially."

"For example, before the operation, I was unable to hear a convensation over the telephone in the right ear, whereas I can now hear over the telephone practically as well in the right ear as in the left."

"The operation, while, of course, not restoring my normal hearing, has been a success in every sense of the word. My friends, without exception, notice the material improvement in my hearing since the operation."

The following incident will give an approximately definite idea of the improvement which had been made in his hearing; several years later, one evening, shortly after nightfall, I found myself, unexpectedly, walking just behind this patient and a male companion, with whom he was conversing. Although, the surroundings were quiet, I walked more than three-quarters of a block, thus, without being able to catch any part of the conversation between them.

Four and one-half years after operation, the ear, on inspection, was found as the operation had left it; and the hearing for conversational voice had markedly improved.

More than six years have now elapsed since this gentleman's ear was operated upon.

About Thirty Years.—This patient, a locomotive engineer, middle-aged, who responded to our new test, and submitted to operation, as advised above, gives the following account of his own case:

"I have been troubled with a discharge in my right ear for about thirty years: the discharge, at all times, being very offensive, and seemed to run more at night than in day-time. I remember, when a child, of having my ear syringed by my mother. But this never gave me any relief, as my ear would continue to discharge, regardless

of all the attention given it. I had never been able to hear a sound of any kind from my right ear, and was often troubled with a ringing sound accompanied by dizziness, when I would have to take hold of a post or anything for support, until that feeling would pass away, which would last about 30 seconds."

As regards the effects of the operation upon his hearing and other symptoms, he wrote me:

"There is no more discharge in my ear. I can hear plainly; and can hear as plainly as anyone through a telephone. I can even hear a whisper or a watch-tick in my right ear."

No adverse report has since been sent in, notwithstanding that four years have now passed since the time of operation.

Twenty-five Years or More.—This lady, fifty-six years of age, the wife of a regular physician in general practice, came to consult me, in compan[illegible] with her husband, who, before leaving his home, wrote me regarding her case, in part, as follows:—

"The matter is a very important one, because, if my wife does not get relief, I have fears for her continued sanity."

"My wife, aged fifty-six years, suffers from tinnitis auriam, partial deafness,—especially the left ear,—occasional vertigo—this latter always temporary—hears fairly well in a crowd or amidst other noises than taht of conversation."

"*History of cases*: Had scarlet fever at sixteen years of age. Sequalae—suppuration of left ear, with a purulent discharge that lasted two years—at the end of this time, so far as she knows, her recovery was complete—hearing remaining good until thirty-five years of age, when a slight discharge from her *left* ear appeared, through a small opening in the tympanum. She dates the subjective noises from this period and also the dullness of hearing. I took her to an aurist, who diagnosed "Catarrhal inflammation of the Middle Ear." This man practiced Politzerization, etc. The subjective noises have slowly increased, together with occasional, slight and short attacks of vertigo; until now, at fifty-six years, she can only hear ordinary conversation with left ear at 10 inches—with occasional lapses when she cannot hear at all.

Hearing in her *right* ear began to be dull at forty-five, but subjective noises in this ear, she thinks were not noticed until fifty-four years old, she now hears common conversation with right ear at four (4) feet. Claims she cannot hear a watch at all, with either ear. Hears an ordinary eight-day-pendulum clock at one foot, with right ear; but not at all with left ear. The opening in left tympanum found, when thirty-five, healed up. Both membrani tympani are in place, but present a thickened and sclerosed appearance. Last October I consulted Dr.————* of your city,* who examined her ears. His diagnosis was expressed by one word—"Sclerosis!"

*A prominent otologist!—R. D.

He treated her for two weeks by passing into each Eustachian tube a few drops of Philocarpine solution, and used the ear messeur one-and one-half minutes to each ear. On his advise, I purchased a messeur instrument and have used it carefully a portion of the time ever since. Still, I can see no striking results. Possibly the matter might otherwise have been worse," and so on.

The patient was first examined by me just one year after having received her treatment at the hands of my local fellow-otologists, and could hear the Koenig's rods to 40,000 vibrations a second—with either ear. Tuning-forks tests, gave the following results: Right ear: C—^{2}(32 v. s.) AC unheard; C.—^{1} (64 v. s.); Right Ear, by Air-Conduction, 6; by Bone-Conduction, 19; and so on.

Left Ear: C^{2} (32 v. s.), AC, unheard. C^{1} (64 v. s.) AC, unheard; B.C., 15; C. (128 v. s.), A.C., hearing doubtful, uncertain; B.C., 42; C.^{1} (p56 v. s.) A.C., 8; B. C., 16; and so on.

Amongst other causes of reflex aural irritation, there is considerable irritation with the teeth, especially a number of devitalized or "dead" teeth, which she was forwith advised to have removed, and promised to do so later,—but, let me say—up to the last reports she was still postponing this part of her duty in the management of her case after my judgment.

Although the case was, evidently, one of so-called "sclerosis" with neurotic factors and reflex irritation; yet from the fact that she responded somewhat to the test proposed above, tympani resection of the left ear was recommended, and the patient agreeing to get rid of her dental irritation thereafter, as I might advise, the operation was readily done.

At my suggestion, her husband, the Doctor, made notes of the effect of the operation upon her hearing, etc.; and I shall take the liberty of quoting from them, as follows:—

(Day after operation) "Heard Dr. B's questions in left ear."

(Second day after operation.) "Heard street noises, such as wagons passing."

(Third day after operation, heard Dr. B's questions with left ear, right ear being closed.) "Same day heard the "Chuff! Chuff! of an automobile, which really awakened her from sleep."

(Fourth day after operation.) "Heard bells on streetcars."

(Eight day after operation.) "Heard footsteps in room over head, and the ringing horse foot-steps on pavement which she described as "metalic."

(Ninth day after operation) "When walking in the street complained of "screeching" sound of the slipping of the car wheel, when the cars were being braked for the stops."

At six p. m.; heard the clock strike on the other side of the room —distance 20 feet. Same evening, heard a small dog bark, in the street, she being in her room on the second story. At eight p. m.,

heard an ordinary watch ticking when pressed against right *ear*—the first time for *two* years, *etc.*

Her hearing continued to improve, and I urged her to give attention to her dental irritation at once, and before her departure for her distant home; but failed to induce her to do so. Upon her departure, she was urged to attend to this at once, as conservative of hearing. Upon the day she was last seen, I found that, with the "resected" ear, she could hear by air-conduction, the entire range of the normal auditory scale, as far down as just below the C-2 (32 v.s.) tuning-fork.

Her husband, the Doctor, later wrote me, in part, as follows: "Mrs. ———— has steadily improved in most respects; whereas, for a period of more than two years, she had not slept on an average of more than four hours out of the day, she has slept from eight to twelve hours out of every twenty-four, ever since the night following the ossicielectomy. She is calm and reasonable; and takes an interest in the affairs of life. I send you a card with diagram of the size of opening in the drum-membrane of her left ear. She asserts that she does not hear as well as she did up to three weeks after the operation. She admits that she is absolutely free from the subjective noises, save, that when she becomes fatigued, a small bell-like ringing occurs in her *right* ear. Etc

As yet, there has been no report of the formation of a complete substitutive membrane at the site of the original membrane tympani.

I have since written once, urging them earnestly, to get rid of the reflex irritation, of dental disease, devitalized teeth, etc., for the sake of the ears and hearing; but have not heard, as yet, whether or not my advice has been followed.

More Than Twenty-one Years.—This lady, a professional pianist and music teacher consulted me for disease of the left ear, with which, she stated, she had been afflicted since childhood—for more than twenty-one years.

The roaring noises in this ear not only caused much distress but contributed further to deafen her until this deafness had grown so marked that she could not distinguish speech through a Bell-telephone. Frequently, she was obliged to pay the closest attention in order to understand the peculiar voice of certain speakers; and appreciation of delicate qualities of tones was, oft-times, a trying task to her. Not the least annoying of her symptoms was an intolerable itching in the affected ear. A discharge from this ear she had succeeded in keeping free of fetor, under methods of treatment advised by several competent physicians—one of them, one of our best known ear and eye specialists—at whose hands she had taken treatment.

Operation was advised and consented to.

The last call made by the patient for formal report and inspection was six months after the operation; when it was found, that she

was still free of the roaring noise, itching, discharge, and deafness—her hearing, in the affected ear, for the voice and whisper, appearing normal; while she now had no difficulty whatever in hearing an ordinary whisper through the Bell-telephone.

In every respect the results of the operation have been pronounced wholly satisfactory; and at an occasional meeting, she states the ear and the hearing are still at their best.

More than seven years have now elapsed since the operation on this patient's ear.

More Than Eighteen Years.—This man, a mechanic, of German parentage, and about 42 years of age, after having submitted to a course of palliative treatment for left chronic purulent otitis media, until it was evident that no further relief was probably therefrom: consented to submit to tympanic resection. About four weeks after the operation, the patient described his own condition, as follows:

"Deafness of more than eighteen years, due to an abscess of the left ear, which caused me much trouble. Have been to many physicians before, but had no relief until I went through a course of treatment by Dr. R. Barclay; and finally an operation was advised and consented to. For ten years before this operation and treatment, I was, at times, so dizzy that I had no rest, day or night. (Tested), three weeks after the operation, I can hear somewhat better and my dizzy feeling has left me. I can now hear a clock tick from one side of the room to the other, which Icould not hear before, except close to the ear."

This patient's hearing subsequently has remained excellent; and there has been no recurrence of his symptoms, although about four years have now elapsed since the time of his operation.

Many Years, Number Uncertain.—Thmis man, a railway conductor, about forty-four years of age, fearing that he was about to be dismissed from the service because of very great and gradually increasing deafness, consulted me, giving the usual history of chronic catarrhal otitis media. Medicinal treatment proved of no avail. Answering, in some degree, the test herein proposed, this man was advised to submit to tympanic resection of his worse ear, as a reasonable last resort against total disability from deafness. He consented thereto; and the operation was done.

Within four hours afterwards, the hearing upon the *opposite* side had been so remarkedly improved by the operation that the tick of a watch was heard, which had previously been inaudible for about six months.

Later, he wrote me, in part, as follows: "About one week after operation, our little canary bird singing would annoy me at a distance of forty or fifty feet. My wife remarked that my ears were certainly improved, if I could hear the bird so plainly, as it was downstairs, hanging in the kitchen window, and I was upstair." Previous to

the operation, he said, the singing of the bird was rarely noticed by him, even when hanging nearly in the same room with him.

"On the eleventh day, I took a trip on the train. I was riding in the fifth car from the engine, and could hear the engine whistle very plainly. They sounded plainer than for months before. I was talking to the conductor of the train on this trip, and he remarked that I could hear better; and he claimed he was talking in a very moderate tone while talking to me."

Some of this man's immediate family and friends have expressed to me, personally, their pleasure at his improved hearing.

He is still hard at it, at his post; and will probably be spared thus for many years' service which otherwise would have been lost to his Company and family.

Three years have now elapsed since the time of his operation.

More Than Nineteen Years.—A man, aged thirty-seven years, formerly a traveling salesman, but latterly employed as a streetrailway conductor consulted me respecting the possibility of securing, through an aural operation, radical relief of dulness of hearing, severe pains in the head, vertigo, and ear discharge, which was, itself, not only very fetid, but had rendered his breath also offensive, much to his embarassment and mortification, socially, as well as commercially. He had been led to consult me the more willingly, from the fact, that a prominent physician of this city had kindly taken an interest in his case, so far as to inform him, that the operation of tympanic resection, advocated by me in conditions specified above, was designed to relieve, not only ear discharge, vertigo, headache and other active symptoms, but deafness, as well—a blessing for which he had long since ceased to hope. However, the former symptoms of which he complained—dullness and severe pains in the head, vertigo, fetid discharge, and offensive breath,—had become so annoying, as, finally, to demand attention. Right here, it might be as well to state, that his disability had prevented his continuing the pursuit of his calling as a salesman; his going into business for himself, as intended; his promotion to the more lucrative position of inspector on his read; and his financial success, because of prolonged expense and occasional absence from business attendent upon the intercurrent exacerbation of his disease.

Examination of his right ear showed the destructive effects of suppurative critis media, which had continued in spite of treatment, for over nineteen years, and which had been brought on, originally, in boyhood, by swimming and diving.

The operation of tympanic resection, recommened by me, was consented, to; and he was operated on thus, on the third day afterwards.

Excepting a trifling amount, on the ninth day, there has been no discharge whatever, from the ear, since the fifth day after the operation; and his headache, vertigo, fetor, etc., disappeared at once.

The previous condition of his hearing and the effect of the operation upon it, can perhaps be most appreciated through the following, of the patient's own statements:

(Before the operation.) "I could not distinguish a word spoken in my right ear."

(On the fourth day after the operation.) "At the present time, I can hear a whisper; and can hear common conversation in an adjoining room."

(On the seventh day after operation.) "I can talk," (he means "hear") "through the telephone with the operated ear."

(Shortly after the operation, he returned to work; and on the thirty-ninth day after it, stated of the operation): "I can say, that it was beyond my expectations; for my hearing is so good, that it is annoying at times. People talking to me, at times seems as if they were shouting, and the noise of a streetcar is almost deafening."

"I do not have headache at all.

"Before the operation, in a convention, I was always saying 'what?' because I did not hear; and now, I find it nothing but a habit, for I can hear as good as ony one. tI took me some time to get used to the sound; for its cemed strange to me to hear noises that I never heard before. It has been a great help to me in my work; for I have to answer a great many questions, and from all classes of people: and I find that my hearing gets better all the time."

I have seen him occasionally since the operation, and he declares himself entirely pleased with the results of the operation which was done over fifteen months ago.

More Than Thirty-four Years.—This patient, thirty-six years of age, had suffered for more than thirty-four years with intermittent chronic purulent otitis media of the left side. By medicinal treatment he was relieved of his discharge, sometimes, for months, or even more than a year at one time. Finally about nine or ten years ago, a resection operation was done upon the affected ear, the remains of a drum-head malleus being removed, no incus being found.

Cessation of the dicharge followed within a reasonable time after the operation, and did not annoy him again until a long time after: when, after careless exposure to a fearful blizzard, his old trouble returned; and persisted, in spite of the very best medicinal treatment. His attendant, one of our most eminent eastern otologists then recommended a mastoid exenteration operation. But his duties, calling him acros the Atlantic, he then placed himself under a leading continental otologist. After medicinal treatment, for awhile, which failed to relieve him, this specialist also recommended the mastoid exenteration operation.

His aural and temporal neuralgia, at times, was so intense, as nearly to drive him "distracted," so he forthwith returned to this country, but hesitated about submitting to the operation as previous-

ly advised by these two gentlemen, without first visiting his home relatives. While on this trip, he consulted me; when, a careful exploration of the parts revealed, lying on the scute of the tympaniettic, at the entrance to the mastoid antrum, the hitherto inaccessable *incus*, which was forhwith removed with a curved hook. This was followed by a gradual cessation of the intense shooting pains through the ear and head; gradual retardation of the aural suppuration; and an enormous increase of hearing power, a forty-eight inch watch being audible in this ear, at three to six inches distance, at times; and a whisper now being heard with it at more than twenty-five feet.

The *incus* was removed, in this case, about eighteen months ago.

Suffice it to say, in summing up, that the one practical lesson of this essay and of my own experience, that I trust you will carry away with you is this:

Clinical experience seems to have confirmed the opinion, that in cases of deafness, long abandoned as hopeless, habitual speaking in an abnormally moderated or low tone of voice, associated with better hearing in a noise or noisy place, is an evidence of an immobilization of the outer portion of the auditory conducing mechanism; and, in such cases, is an indication for the employment of surgical measures for its radical relief, and also, that resection, that resection of the auditory conducting mechanism, properly done, will radically relieve deafness—no matter of how long standing, nor however treated hitherto—proportionally to the distinctness of the following characteristic symptoms, when found together, namely: habitual speech in an abnormally moderated or low tone of voice, with better hearing in a noise, or noisy place,—which, it is herein claimed, are pathognomic of immobilization of the outer portion of the auditory conducting mechanism.

Before closing, the writer would modestly express the hope, that this paper may serve to direct the attention of some hearer—one more professional brother—to the resection of the auditory conducting mechanism as a rational method of radical relief for certain hopeless cases of deafness,—with or without discharge from the ear,—whose merits, certainly entitle it to more careful and tedious consideration than it appears hitherto to have been accorded by the medical profession generally.

In conclusion, allow me to repeat:

"A moments reflection, however, will serve to show, how irrational it is to condemn a potent agent, such as this, as harmful or useless, simply because of results, however lamentable or disappointing in themselves, arising from the indiscriminate or inappropriate employment of such agent. Particularly, since propriety and reason lies not only in its application, but in its proper application. And where, occasionally, we meet with marked instances of the undoubtedly advantageous application of a remedy, obviously so beneficial as this one, failure or disappointment should not strengthen our determination to perfect the search for the exact indications for its employment;" which as far as known, I have tried to state and to explain to you.

THE PHYSICIAN A DEBTOR TO THE ORGANIZED PROFESSION.*

BY ALFRED R. ROWE, M. D., POPLAR BLUFF, MO.

The particular ground which this paper is intended to cover has many times been more fully and more ably discussed. My reasons for again presenting it are, first, its importance; second, that only by repetition can any truth, no matter how vital, attract its due share of attention.

The trend of the times, yes, we may say the trend of all times, is and has been towards organization. The primitive man for self-protection against wild beasts and enemies, banded together in tribes or clans. From this beginning our present civilization has grown. And the reason for our higher form of organization now as then is protection. Charles Mercier in his article in Albutt's System of Medicine on "Vice, Crime and Insanity," lays down this fundamental truth: "the existence of a community, an aggregate of any kind, implies and involves the surrender upon the part of the individuals who compose the aggregate, of a part of their freedom of action." also this truth: "Wrong-doing is the sacrifice of others to self." Thus a man conducting a business is freer to act than if he was in partnership with others for in partnership his freedom of action as regards the business is necessarily limited. Now if, by some independent or underhand action, one partner gaines entire control we have an illustration of our second truth—wrong-doing the sacrifice of others to self. If in the walk of life mine and another's paths conflict then necessarily if no wrong be done there must be a mutual giving up, or sacrifice. On these basic truths or principles all organizations are based, no matter how primitive, or to what degree of perfection the development. They imply that there is a sacrifice to be made and a benefit to be gained, and further, that the benefit gained is greater than the sacrifice made.

It is my purpose in this paper to show briefly, first, the need of organization in our profession; second, how the present organization fulfills that need, to some degree the benefits resulting from its labors; third, that the individual physician as a participator of these benefits, is a debtor, and as such what the nature of his payment should be.

We need an organization for protection as a profession. We are in the habit of looking upon our profession as the noblest profession. Many are the opportunities for noble action that our chosen vocation gives us. But let us look at it from a layman's standpoint. His view of the medical profession is much broader than ours and includes the various advertising quacks, magnetic healers, oesteopaths, and

*Read before the Butler County Medical Society, February 22, 1907.

others who profess to treat and cure disease. In this broad view are classed the honest and the dishonest, the gold and the alloy, the noblest and the basest. Here, without going further, we see the need of protection by the profession, as a whole.

Among men associated together in the same line of work, contention will arise, and paths will cross. Freedom of action must be limited, sacrifice by each must be made, else wrong to the individual will be done. Especially is this true of the professions, and that of medicine is no exception to the rule. So here we see the need of protection by the profession as individuals.

Progress in our profession more than in any other is dependent upon individual work being brought together and compared. In other words we as individuals are dependent one on the other for the results we accomplish. He who in his self complacency cares not to learn from others, but considers that he is self sufficient, will surely not advance, but retrograde. Hence we see the need of protection by the physician as against himself.

Having a need for protection we have our organization to fulfill that need. Our medical association was started with a selfish motive in view—that of self-protection. However much we would like to look upon it as having had a more noble incentive, we must acknowledge that it had for its object first and foremost, self. Not so has its object continued. Just as the art of healing, which in ancient times, was practiced by slaves, has gradually raised its standard of education necessary to practice intelligently and attracted to the study of its mysteries the brightest and most learned, so our organization has grown beyond self into an ever widening field of usefulness. Society as a whole partakes with the medical fraternity of the benefits conferred. We can point to its work with pride. Sanitary conditions where before were filth and disease; fewer and less fatal epidemics; many diseases robbed of their terror; cleaner food; purer water; many such results which would have been impossible to accomplish without great study and concerted movement. One of the greatest benefits to society as a whole is the exposure of the danger of patent medicines which has now been taken up by the lay-press. Again, our organization furnishes the laity with a means of distinguishing between a physician and a quack, between the honest practitioner, and men who have lost all conscience and will promise whatever the patient wants promised, no matter how impossible of fulfillment.

There are many benefits resulting from our existing organization, too numerous to mention. Among the many the social feature is not the least. Many a firm friend and true ally will be found among those who, before we knew them were looked upon with a feeling of antagonism. Many seeming discourtesies will be found to be the result of a misunderstanding and professional jealousy, which, while it

benefits no one degrades the profession, can be made a thing of the past by this same social feature. We will find when we get acquainted with others of our profession, that their friendship is well worth cultivating and will be surprised that we did not find it out before.

So the physician of today looks about him and sees the need of protection and in the medical organization he sees that need supplied. In looking into its working he sees that mutual sacrifices of the individuals tend to form the perfected whole, eliminating to a great extent the sacrifice of the many for the few. He sees in contrast to the sacrifice made, the benefits gained; these as we have pointed out are not confined to the medical fraternity alone but are shared with society.

Each physician owes a duty to the organized profession. First as a physician who is enjoying the result of its work for the profession. Second as a citizen who is enjoying the result of its work and whose position in society is such that he is eligible to share in its labors. Duty implies debt. Voluntary service, charitable work, is a gift, a free gift. When we speak of our duty we necessarily imply that we are in debt. Speaking of the duty of a child to its parents brings to mind the debt of love and care the child owes. The foreigner living in this country and enjoying its freedom and prosperity owes his adopted country a debt. So the physician, enjoying the benefit procured for him by the work of the County Society, the State Association and the American Medical Association, is just as surely a debtor.

The first duty he must pay is to acknowledge the debt by becoming a member of his County Society and thus approve and endorse the general movement of the organized profession. By so doing he signifies his intention to deal honestly with his fellow-man and fellow-practitioner. He shows that he has some concern as to his standing in his chosen profession and also the standing of his profession among others. Having then made his first step in the path of duty by acknowledging his debt, his next step should be taken. That is to maintain his membership, keeping himself in good standing, paying his part of the expenses in full and when due. What is worth joining is surely worth supporting. Next he should be present at the meetings of the society whenever possible. This means that his absence should be the exception, not the rule. For having now become an integral part of the organized body the business of the society is his business and no one can attend to his business as well as he himself. To do this properly requires regular attendance. In all societies we have active and passive members. Be an active one. Unless we are of the active class we have no right in the medical profession. Our society needs her active members active in her behalf and if we deem our membership as of value, why should we not supply her need Much has been done—we are the gainers thereby—more is to be done—let us not be classed among the drones. Let us by our activity pay the debt we owe by making those who come after us in this noble profession greater debtors even than we to the medical fraternity.

AN INTERESTING CASE OF CONGENITAL DEFORMITY.*

BY GORDON A. BEEDLE, M. D., KANSAS CITY, MO.

In presenting this case for examination and discussion I do so not with the intention of embracing a paper covering the broad field of deformities and monstrosities of the fetus, but rather to limit this short report to that certain type of anamolies of growth to which I believe this case belongs.

Clemot Brewer, born June 18, 1905—Presenting deformities consisting of absence of left leg from about two inches below the knee joint. Right foot, equinovarus with absence of toes. No markings or irregularities in any other respect on body. Absolutely normal in every other respect with the exception of being unnaturally bright for his age. Being sixteen months old to date, commenced sitting alone at three months of age and has been talking for the last three months. Mother and father both healthy. Mother's age twenty-five years. Gave birth to normal healthy baby three years ago, at which I delivered her at Kansas City; her father and mother both living and healthy. Husband's parents both living and well; no tuberculosis or syphilis in family. History of normal gestation, with exception of during last three months, when symptoms occasionally occurred and described by patient as sudden cramps of right hip. Baby was born in Trenton, Missouri, and delivered before the attending physician arrived.

The variety known as club foot is not so uncommon but when associated with an absence of toes on the same foot and with the opposite limb presenting the appearance of an amputation of the leg at the upper third, the interest in the case from the standpoint of the etiology, or pathology, increases materially. The theory of muscular retraction as the result of some alteration in the central nervous system, could possibly be applied here had it been simply a club foot with no other deformity, but could hardly be applied to an absent leg or foot. The cause of the one deformity is evidently the cause of both as the absence of the toes on the club foot would indicate.

Of the little I have been able to learn from research, the theory of compression, either from uterine muscles associated with scant amount of amniotic fluid, or adhesions, seems the most plausable for this type of fetal deformity. In general the fetal position of the feet for the first three months is that of varus. If such a condition, causing mechanical pressure, existed in its primitive state, with possibly adhesions forming in such a way as to block the progressive growth of one limb, such a result as we have here would not be impossible.

*Presented at the meeting of Jackson County Medical Society, October 13, 1906.

THE RELATION OF PELVIC DISEASES TO INSANITY.*

BY N. F. TERRY, M. D., SPRINGFIELD, MO.

It has long seemed a settled fact that an intimate relation exists between the female pelvic organs, particularly the uterus and its appendages, and certain mental states designated under various titles. These are hysteria, hystero-neuroses, genito-reflex nervous disturbances and sympathetic insanity. While there are numerous instances of mental symptoms, due to certain obscure conditions of these organs, without the signs of organic disease, it is here proposed to consider only those conditions in which definite organic disease exists.

It is now considered that organic disease of the uterus, when it results in mental disturbances, is not sympathetic but, like diseases of other important organs, by pain and interference with proper nutrition and by long continued drain, results in faulty nutrition of the cerebral centers, thereby producing a condition of cerebral anemia. This condition, with a predisposition already existing, is a sufficient cause for insanity. The literature of the subject is voluminous, yet the more important contributions have been made within the last forty years. Meyer of Berlin was among the early writers in a paper entitled "Relations of Morbid Conditions of the Sexual Organs to Psychology." Fordyce Barker discusses the subject in his work entitled "Uterine Diseases as an Exciting Cause of Insanity." Hergt of Heidelberg, in 1870, had something to say about "Woman's Diseases and Disturbances of the Mind." Skene, in 1880, who studied this subject in Kings County Insane Asylum concluded that diseases of the pelvic organs are rarely the cause *per se* of insanity; that the irritation and exhaustion produced by uterine and ovarian disease is a predisposing indirect cause, and only in those who are already of a poor mental balance. Manton, of Detroit, is considered the pioneer in this country in extensive surgical study of pelvic diseases in the insane. Through his writings, and others of perhaps equal influence, the opposition to surgical operations in insane asylums has given place to toleration and encouragement where pathological conditions are known to exist. That there is a sentiment in favor of the recognition of surgical disease is shown by Noble, of Atlanta, who, in 1900, addressed a letter to all the asylums of the United States and Canada cases. Those who expressed an an opinion believed that pelvic diseases are exciting and contributory to insanity when they affect the general health of patients who are predisposed to such mental state. At the present time a small per cent. of institutions recognize the necessity of the treatment of pelvic disease in the insane. In a few of the larger institutions gynecologists have been added to the

*Read before Greene County Medical Society, February 22, 1907.

medical staff and well equipped operating rooms are provided. our own state, if information is correct, no systematic provision is made for the management of these cases; largely the fault of the management perhaps.

That a large per cent. of insane women have some form of pelvic disease seems to be certain. Ripping states that in the asylums in Germany 33 per cent. have pelvic diseases, as shown by autopsies. Hergt speaks of 66 per cent. Various reports from asylums in the United States gives 60 per cent to 93 per cent. It is not to be inferred from these figures that insanity is a form of pelvic disease, or that surgical operations are necessary in very many cases. It is reasonable to believe, however, and the facts seem to warrant the conclusion, that a considerable per cent. of these cases have definite pathologic lesions, often grave in character, which entail great suffering and danger to life, and in addition are a causative factor of the morbid mental state. Brown, of the Manhattan State Hospital for the Insane, in order to induce conservatism, recommends surgical operations where indicated without the object of inuencing the mental condition. In this way, operations of doubtful utility are avoided. These include major operations, abdominal section for the removal of conditions endangering life, operations for displacements, repair of cervical and perineal lacerations and endometritis.

It has been observed that the greatest mental improvement follows removal of diseased tubes and ovaries, and next to these the correction of displacements and lacerations of the cervix and perineum.

There seems to be no evidence that operations on insane women tend in the least to aggravate the mental state. These patients undergo operations equally as well as other classes. In those cases in which cures are anticipated as a direct result of operations a greater per cent. follows operations done early in the disease before the mental alienation has become fixed.

The strong opposition by many physicians in charge of insane asylums grows out of the fact that they fear surgical operations involving the removal of tubes and ovaries. They have not quite forgotten the epidemic of surgical hysteria of the early 80s, where removal of the tubes and ovaries was indicated in all cases where medicine failed. A removal of the ovaries and tubes when they are not diseased is of rarest necessity. An instance is that of a case where menstruation was attended by a mania lasting for ten or more days covering a period of several years. These are sometimes failures.

A condition which has recently been mentioned as a cause of insanity is old abscess of tubes involving the ovarian and adjacent structures in extensive adhesion. These cases are subject to severe and continuous pelvic pain which finally reaches its limit in faulty nutrition, general and cerebral anemia incident to insanity.

The surgical treatment of insane women is too early in its in-

fancy for the wisest to draw conclusions as to its exact value. There are some facts relating to it, however, which seem well established:

1st. That a large per cent. of insane women are the subjects of pelvic disease.

2nd. That these diseases in some instances affect the general health, endanger the life, and are causative and contributory to the mental condition.

3rd. That insane women bear surgical operations well without the mental disease being made worse.

4th. That in most institutions and in private practice surgical examination and treatment of these diseases are neglected.

To the general practitioner it is a matter of much practical importance, as everyone has to do with an occasional case of insanity.

Without rushing to conclusions, it seems safe to say again that a large per cent. of insane women have pelvic disease, and an early diagnosis of such lesions renders early surgical treatment possible; and these form a class in themselves in which the benign results of surgical interference are most apparent.

As is often the case the general doctor has the load to carry. The responsibiilty of early treatment and prompt diagnosis rests with him, and if the near future holds something better in the treatment of insane women, it will be the same story as in appendicitis, ectopic pregnancy, and allied conditions, where the general practitioner makes a diagnosis, and with it has the courage of his convictions.

Journal
Missouri State Medical Association

The Official Organ of the State Association and Affiliated County Societies.
Published Monthly under the supervision of the Publishing Committee.

ADDRESS ALL COMMUNICATIONS TO 534 NORTH VANDEVENTER AVENUE, ST. LOUIS.

Volume III. MAY, 1907. Number 11

E. J. GOODWIN, M. D., Editor.

Publication Committee:

C. M. NICHOLSON, WALTER B. DORSETT. B. M. HYPES. W. G. MOORE.

EDITORIAL.

THE SEMI-CENTENNIAL MEETING.

The Fiftieth Annual Meeting promises to be the most enthusiastic and the most largely attended meeting in the history of the organization. The opening exercises will be held on the evening of the first day, Tuesday the 14th. At this meeting the President will deliver his address which will be followed by the orations in medicine and surgery.

The members of Cole County Medical Society have arranged a most interesting program to celebrate the semi-centennial meeting. These exercises will be held on the evening of the second day, Wednesday the 15th, at Frienel's Garden. Governor Folk will address the assembly and Dr. W. B. Outten will respond.

All living ex-presidents have been invited to be present and most of them have promised to attend. These men have seen the Association grow from a small handful of earnest workers into a united organized body, with members from every section of the state.

In 1850 about 150 physicians gathered together at Boonville and the Association was organized under the presidency of Dr. W. G. Thomas, of Boonville. About twenty counties were represented. Today our roster shows a membership of something over 2,400 members of the profession, and 103 counties out of a total of 115 are organized and affiliated with the state organization.

With all this we are only beginning to realize the full strength of our influence and power. At the last session of the Legislature more practical medical laws were passed than at any previous session. The profession in the state owes much to the medical members of the legislature for their intelligent and active co-operation in securing the passage of these laws. If a larger percentage of physicians could be elected to serve in the General Assembly it would strengthen our cause

when medical laws are introduced, and the citizens of the commonwealth would lose nothing of intelligence and wisdom in the consideration of other measures presented for passage.

This semi-centennial meeting should mark the beginning of a new era in the history of the State Medical Association. In the next five years more can be accomplished, through organized effort and with the earnest support of every member, than was done in the past fifty years in all that makes for the good of the profession, of the people and of the State.

MEETING PLACE.

The Association will meet in the Capitol Building, providing the special session of the Legislature adjourns before the 14th. Should the Legislature remain in session during the period of our meeting we will hold our sessions in the Court House and in the halls of the Y. M. C. A. building. The indications are that the Legislature will adjourn early in May and that the Capitol Building will be at our disposal.

The hotel accommodations in Jefferson City are ample for the meeting, even though the Legislature should remain in session. The Madison Hotel now has 100 rooms, 50 with bath, and long distance telephone in every room. A splendid new cafe has been installed and patrons may reserve rooms either on the European plan or the American plan. The Central Hotel has also built an addition containing sixty rooms, and the Monroe House has been remodeled. Members may feel confident of securing comfortable and pleasant quarters both in the hotels and in the many private homes that are thrown open for our entertainment by the hospitable citizens of Jefferson City.

HOW TO SECURE THE ONE AND ONE-THIRD RATE.

The railroads have granted a rate of one and one-third fare for the round trip to Jefferson City, on the certificate plan. Members must not fail to obtain a certificate from the ticket agent showing the sale of a ticket to Jefferson City. Those members who are compelled to change *en route* and continue the journey on a line foreign to the one from their home towns, must obtain two certificates, one from each agent from whom a ticket is purchased. The certificate is valueless unless it shows Jefferson City as the destination. Please don't forget this.

CREDENTIALS FOR DELEGATES.

Delegates should bring credentials from the societies which they represent. These credentials should be handed to the Secretary immediately upon arrival at the meeting. In this way every delegate

will be accredited with attendance at the meeting. Last year several delegates failed to receive proper recognition in the printed list of delegates present. We should not permit this to happen again. Alternates will be recognized in the absence of the regularly elected delegate if proper credentials are presented. Credentials must be signed by the secretary and the president of the affiliated county societies.

Members who desire to exhibit specimens in the Pathological and Anatomical Exhibit, and who have not been able to send them to the committee, may bring them to the meeting place where they will be received by the committee and placed in the exhibit. Dr. Guthrie McConnell will be at the booth to receive these specimens from the members.

The Governor has appointed Dr. S. L. Baysinger, of Rolla, a member of the board of trustees of the Missouri State University. This appointment gives the medical profession two members on this board, the other member being Dr. John C. Parish, of Vandalia.

Buchanan County Medical Society has changed its name to the St. Joseph Buchanan County Medical Society. This society has grown steadily and now numbers eighty-five members. They will be entitled to two delegates at the Jefferson City meeting.

Dr. John S. Daviess, of St. Louis, was convicted and sentenced to serve five years in the penitentiary for performing an operation on a young woman which resulted in her death in December last. The St. Louis Medical Society was instrumental in gathering much of the evidence which convicted him.

The trial of "Dr. H. C. Carson," of Kansas City, charged with practicing medicine without a license, will begin in the Criminal Court under Judge Wallace, May 2d. The movement was instigated by Geo. Creel. A full account of the proceedings will be found in the *Independent*, of which Mr. Creel is publisher. The last two publications, giving the deposition of the "Doctor" and his assistant, Planck, are alone worth the price of the paper.—(From *Bulletin of the Jackson County Medical Society.*)

PRESCRIPTIONS FOR LIQUOR MUST BE REPORTED MONTHLY.

An Act to repeal section 3048a of chapter 23 of the Revised Statutes of Missouri, 1899, in relation to druggists and their license.

Sec. 1. That section 3048a of the Revised Statutes of Missouri, 1899, be and the same is hereby repealed, and the following new section in lieu thereof, to be known as section 3048b.

Sec. 3048b. Every druggist, proprietor of a drug store or a phar-

macist shall, on some day of the first week of each and every month, file with the county clerk of the county in which he is doing business a list of all prescriptions compounded by him or those in his employ, prescribing liquors during the preceding month. And said list shall be accompanied by an affidavit of the druggist, proprietor of a drug store or pharmacist, stating that said list so filed is a true list of all prescriptions filed (filled) by him or those in his employ during the preceding month. And on failing, neglecting, or refusing so to do, shall be guilty of a misdemeanor, and on conviction, shall be punished by a fine not less than fifty nor more than $200.

THE HODGEN MEMORIAL MEETING.

On the afternoon of April 28th the St. Louis Medical Society held a memorial meeting in commemoration of the twenty-fifth anniversary of the death of Dr. John T. Hodgen.

Dr. Hodgen was one of the best known surgeons of his day, not only in this state but throughout the entire country. He is remembered not alone as an eminent physician and surgeon but his memory is cherished also because of his sympathy with the suffering, his cheering words for the struggling young physician and for his unselfish devotion to his profession. He was successively president of the St. Louis Medical Society, the Missouri State Medical Association and of the American Medical Association.

Following is the program of the memorial exercises:

Invocation—Rev. Samuel J. Niccolls, D. D.

Address—Dr. Hodgen as a National and International Figure in Medicine. Joseph M. Mathews, M. D., of Louisville, former President American Medical Association.

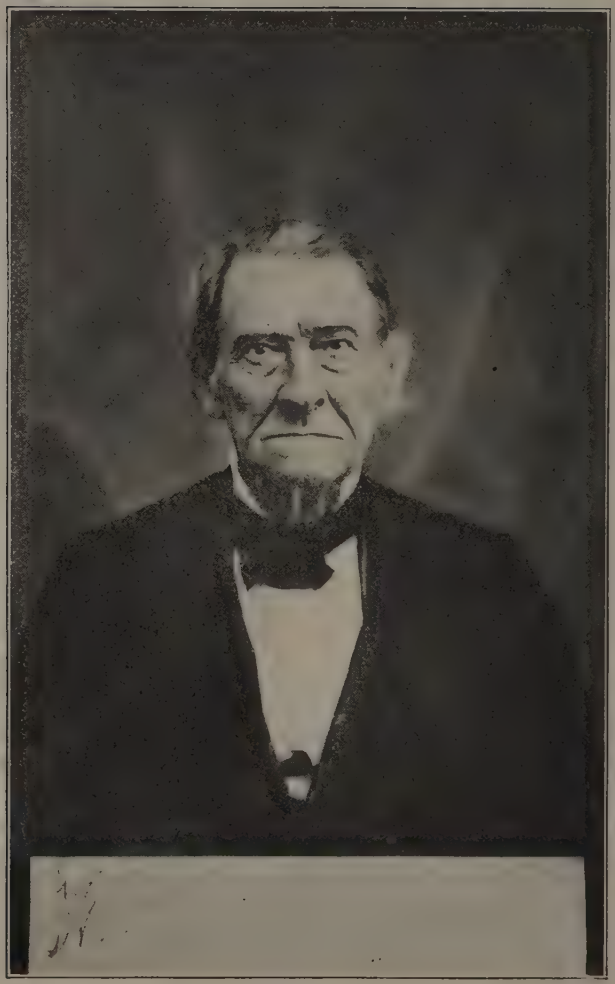
Address—His Educational Influence in the Mississippi Valley. Warren B. Outten, M. D., Chief Surgeon Missouri Pacific Railroad.

Address—The Debt of Missouri to his Example and Memory. Charles H. Wallace, M. D., of St. Joseph, Mo., President Missouri State Medical Association.

Address—His Worth as a Citizen. Charles Nagel, Esq., of the St. Louis Bar.

Address—His Power and Influence as a Teacher over his Classes. Henry C. Fairbrother, M. D., of East St. Louis, Illinois.

Address—His Student and Social Life. Le Grand Atwood, M. D., of Ferguson, Mo.



W. G. THOMAS, M. D.
President, 1850.

PRESIDENTS OF THE MISSOURI STATE MEDICAL ASSOCIATION.

YEAR.	NAME.	ADDRESS.
1850	*W. G. Thomas, M. D.	Boonville
1851	*W. H. McPheeters, M. D.	St. Louis
1852	*J. B. Johnson, M. D.	St. Louis
1853	*J. P. Vaughn, M. D.	Glasgow
1854	*J. B. Alexander, M. D.	Lexington
1855	*C. A. Pope, M. D.	St. Louis
1856	No records.	
1857	No records.	
1858	No records.	
	The gap between 1858 and 1867 occurred during the Civil War.	
1867	*G. A. Williams, M. D.	Boonville
1868	*W. B. Morris, M. D.	Bridgeton
1869	*Charles F. Clayton, M. D.	Ralls County
1870	*T. B. Lester, M. D.	Kansas City
1871	J. E. Tefft, M. D.	Springfield
1872	*E. Montgomery, M. D.	St. Louis
1873	*S. S. Todd, M. D.	Kansas City
1874	*W. O. Torrey, M. D.	Hannibal
1875	*John T. Hodgen, M. D.	St. Louis
1876	J. W. Trader, M. D.	Sedalia
1877	*F. M. Johnson, M. D.	Platte City
1878	E. W. Schauffler, M. D.	Kansas City
1879	*G. M. B. Maughs, M. D.	St. Louis
1880	J. M. Allen, M. D.	Liberty
1881	J. M. Allen, M. D.	Liberty
1882	Willis P. King, M. D.	Sedalia
1883	*A. E. Gore, M. D.	Paris
1884	*E. H. Gregory, M. D.	St. Louis
1885	*H. H. Middlekamp, M. D.	Warrenton
1886	*G. C. Catlett, M. D.	St. Joseph
1887	*J. W. Jackson, M. D.	Kansas City
1888	Frank J. Lutz, M. D.	St. Louis
1889	A. W. McAlester, M. D.	Columbia
1890	L. I. Mathews, M. D.	Carthage
1891	*A. B. Sloan, M. D.	Kansas City
1892	*T. F. Prewitt, M. D.	St. Louis
1893.	A. B. Miller, M. D.	Macon City
1894	W. H. Evans, M. D.	Sedalia
1895	*J. M. Richmond, M. D.	St. Joseph
1896	C. Lester Hall, M. D.	Kansas City
1897	J. H. Duncan, M. D.	St. Louis
1898	Jacob Geiger, M. D.	St. Joseph
1899	George R. Highsmith, M. D.	Carrollton
1900	Walter B. Dorsett, M. D.	St. Louis
1901	U. S. Wright, M. D.	Fayette
1902	J. D. Griffith, M. D.	Kansas City
1903	Woodson Moss, M. D.	Columbia
1904	W. G. Moore, M. D.	St. Louis
1905	Jabez N. Jackson, M. D.	Kansas City
1906	D. C. Gore, M. D.	Marshall
1907	C. H. Wallace, M. D.	St. Joseph

*Deceased.

Semi-Centennial Meeting.

MISSOURI STATE MEDICAL ASSOCIATION.

Jefferson City, May 14, 15, 16, 1907.

Officers 1906-7.

PRESIDENT.

C. H. Wallace, M. D. ..... St. Joseph, Mo.

VICE PRESIDENTS.

F. W. Allen, M. D. ..... Callao
W. G. Cowan, M. D. ..... Sedalia
C. J. Orr, M. D. ..... St. Louis
E. H. Thrailkill, M. D. ..... Kansas City
H. L. Ried, M. D. ..... Charleston

SECRETARY.

C. M. Nicholson, M. D. ..... St. Louis

ASSISTANT SECRETARIES.

Gail Allee, M. D. ..... Lamar
H. A. McDonald, M. D. ..... Pisgah

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Secretary, Gail Allee, M. D. ..... Lamar

SURGICAL SECTION.

Chairman, Warren B. Outten, M. D. ..... St. Louis
Secretary, H. A. McDonald, M. D. ..... Pisgah

ORATORS.

Oration in Medicine, Wm. F. Kuhn, M. D. ..... Farmington
Oration in Surgery, Paul Y. Tupper, M. D. ..... St. Louis

COMMITTEES.

ARRANGEMENT COMMITTEE.

Members of Cole County Medical Society.

COMMITTEE ON SCIENTIFIC WORK.

C. M. Nicholson, M. D., Chairman; J. C. Morfit, M. D.,
F. E. Murphy, M. D.

PUBLICATION COMMITTEE.

C. M. Nicholson, M. D. Chairman; W. B. Dorsett, M. D., B. M. Hypes, M. D., W. G. Moore, M. D.

COMMITTEE ON PUBLIC POLICY AND LEGISLATION.

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COMMITTEE ON TUBERCULOSIS.

Wm. Porter, M. D., Chairman; J. M. Allen, M. D., W. S. Allee, M. D.,
B. H. Zwart, M. D.

DELEGATES.

COUNTY.	DELEGATE.
Adair	James Hanks
Andrew	E. C. Bennett
Barton	T. H. Duckett
Bates	T. C. Boulware
Benton	M. Dillon
Boone	Woodson Moss
Buchanan	T. H. Doyle
	P. I. Leonard
Caldwell	W. T. Lindley
Callaway	J. F. Harrison
Cape Girardeau	G. W. Vineyard
Carroll	Geo. R. Highsmith
Cass	J. S. Triplett
Cedar	R. O. Crawford
Chariton	Oliver McEwen
Clay	H. Rowell
Clinton	J. A. Franklin
Cole	J. L. Thorpe
Cooper	R. L. Evans
Daviess	H. E. Songer
Gasconade-Maries-Osage	J. J. Ferrell
Grundy	J. A. Asher
Greene	C. E. Fulton
Harrison	F. H. Broyles
Henry	J. R. Hampton
Holt	C. L. Evans
Howard	C. O. Lewis
Howell	J. W. Gingham
Jackson	F. E. Murphy
	J. M. Frankenburger
	R. T. Sloan
	Eugene Carbaugh
	J. P. Kanoky
	A. H. Cordier
	N. P. Wood
Jasper	R. L. Neff
Johnson	L. F. Murray
Knox	R. A. Wilsey
Lafayette	W. A. Braecklein
Lawrence-Stone	C. A. Moore
Lewis	H. E. Dunlap
Linn	J. P. Oven
Marion	Thos. Chowning
Mississippi	A. W. Chapman
Moniteau	W. R. Patterson
Monroe	C. H. Dixon
Newton	R. C. Lamson
Nodaway	F. R. Anthony
Phelps	F. L. Baysinger
Pike	D. M. Pearson
Platte	S. Redman
Putnam	J. A. Townsend
Ralls	W. T. Waters
Ray	R. L. Hamilton
Saline	D. F. Manning
Schuyler	J. D. Bridges
Scotland	A. E. Platter
Shannon	P. D. Gum
Shelby	Chas. Chapman
St. Clair	John Seevers
St. Francois	F. L. Keith
St. Louis	W. H. Townsend
St. Louis City	Paul Y. Tupper
	J. C. Morfit
	Jesse S. Myer
	Wm. W. Graves
	John Green, Jr
	W. H. Stauffer
	M. B. Clopton
	F. L. Henderson
	E. M. Porterfield
Worth	W. E. McKinley

COUNCILLOR DISTRICTS AND COUNTIES IN EACH DISTRICT.*

First District.—Councillor, E. E. Parrish, Memphis. Counties: Clark, Scotland, Schuyler.

Second District.—Councillor, H. Jurgens, Edina. Counties: Adair, Knox, Lewis.

Third District.—Councillor, J. D. Brummall, Salisbury. Counties: Chariton, Carroll, Livingston, Linn.

Fourth District.—Councillor, C. R. Buren, Princeton. Counties: Grundy, Sullivan, Mercer, Putnam.

Fifth District.—Councillor, E. H. Miller, Liberty. Counties: Platte, Clay, Ray, Clinton, Caldwell, Daviess.

Sixth District.—Councillor, W. E. McKinley, Denver. Counties: Harrison, Worth, Gentry, DeKalb.

Seventh District.—Councillor, W. T. Elam, St. Joseph. Counties: Buchanan, Holt, Atchison, Nodaway, Andrew.

Eighth District.—Councillor, L. W. Dallas, Hunnewell. Counties: Shelby, Marion, Ralls.

Ninth District.—Councillor, C. W. Reagan, Macon. Counties: Macon, Randolph, Monroe.

Tenth District.—Councillor, Woodson Moss, Columbia. Counties: Audrain, Boone, Howard, Callaway, Warren, *Montgomery*.

Eleventh District.—Councillor, W. B. Dorsett, St. Louis. Counties. Lincoln, St. Charles, St. Louis, Pike.

Twelfth District.—Councillor F. J. Lutz, St. Louis. Counties: Franklin.

Thirteenth District.—Councillor, B. M. Hypes, St. Louis. Counties: Jefferson, St. Genevieve, Perry.

Fourteenth District.—Councillor, Wm. F. Kuhn, Farmington. Counties: Washington, Reynolds, Iron, St. Francois.

Fifteenth District.—Councillor, J. J. Norwine, Poplar Bluff. Counties: Mississippi, New Madrid, Wayne, Stoddard, Dunklin, Butler. Ripley, Carter, Pemiscot.

Sixteenth District.—Councillor, J. D. Porterfield, Jr., Cape Girardeau. Counties: Scott, Madison, Cape Girardeau, *Bollinger*.

Seventeenth District.—Councillor, Frank De Vilbiss, Eugene. Counties: Miller, Moniteau, Morgan, Camden.

Eighteenth District.—Councillor, G. Ettmueller, Jefferson City. Counties: Cole, Osage, Maries, Gasconade.

Nineteenth District.—Councillor, R. D. Haire, Clinton. Counties: Pettis, Henry, Benton, St. Clair, *Hickory*.

Twentieth District.—Councillor, C. T. Ryland, Lexington. Counties: Lafayette, Saline, Cooper.

Twenty-first District.—Councillor, M. P. Overholser, Harrisonville. Counties: Jackson, Cass, Johnson.

Twenty-second District.—Councillor, J. R. Buchanan, Nevada. Counties: Bates, Vernon, Barton.

Twenty-third District.—Councillor, A. R. Snyder, Joplin. Counties: McDonald, Newton, Jasper, Cedar, *Dade*.

Twenty-fourth District.—Councillor, R. L. Johnson, Rolla. Counties: Crawford, Phelps, Pulaski, Laclede, Dent, *Dallas*.

Twenty-fifth District.—Councillor, T. A. Coffelt, Springfield. Counties: Greene, Lawrence, Barry, Stone, Christian, Webster, *Polk*, *Taney*.

Twenty-sixth District.—Councillor, H. C. Shuttee, West Plains. Counties: Howell, Shannon, *Ozark*, *Oregon*, *Texas*, *Wright*, *Douglas*.

**Counties in italic are unorganized.*

NOTICE.

Medical and Surgical Sections will be held at the Capitol Building.

All members will please register with the Registration Committee immediately upon their arrival.

The railroads have granted a rate of one and one-third fare for the round trip. Ask the ticket agent for a certificate at time of purchase of ticket. If necessary to purchase more than one ticket, secure a certificate from each agent for the certificate must show Jefferson City as destination. Deposit your certificate with the Registrar at the time you register.

It is necessary for the certificate to bear the signature of the Secretary and the Joint Agent before it will be honored by the ticket agent for reduced return fare.

Sessions will be called to order at the hour fixed on the Program. It is especially desired that the members be prompt in their attendance.

All papers must be typewritten and should be handed to the Secretary of the Section as soon as read.

No paper will be allowed to occupy more than twenty minutes in its reading. Speakers designated to open the discussion may speak seven minutes, general discussion five minutes, and ten minutes for closing the discussion by the essayist. No one may speak the second time on one subject without the unanimous consent of the members present.

MEETING PLACES.

Surgical Section meets in Senate Chamber.
Medical Section meets in House of Representatives.

ENTERTAINMENTS.

Exercises in commemoration of the Fiftieth Anniversary will be held at Frienel's Garden on Wednesday evening, May 15, at 8 o'clock. Governor Folk will address the members and Dr. W. B. Outten will respond. The Committee of Arrangements have spared no effort to make this an evening of special enjoyment to every member. A number of social features will add to the pleasure of the occasion. All living ex-presidents of the Association have been invited to be present and will be seated on the platform with the speakers.

HOTEL RATES.

The hotel accommodations have been materially increased since our last meeting. Sixty rooms have been added to the Madison and Central Hotel has also increased its accommodations by sixty rooms. The Monroe House has been remodeled.

Madison Hotel—Headquarters—American plan, $2.50 to $4.00; European plan, $1.00 to $3.00.
Monroe Hotel—$2.00 to $2.50. American plan.
Central Hotel—$2.00 to $2.50. American plan.
Elston House—$1.50 per day. American plan.
City Hotel—$1.00 per day. European plan.

Missouri members of Rush Medical College alumni will meet at a banquet at Jefferson City on Wednesday night, May 15th.

All Rush graduates in Missouri are requested to attend.

A meeting of the Alumni of the Beaumont Hospital Medical College will be held in the parlors of the Madison, Wednesday evening, May 15th, at 8 o'clock. All graduates of Beaumont are earnestly requested to attend.

THE PATHOLOGICAL AND ANATOMICAL EXHIBIT.

THE PATHOLOGICAL AND ANATOMICAL EXHIBIT.

1. Exhibit from the Anatomical Department of St. Louis University.

2. An Exhibition of Specimens of Tuberculosis in Various Organs. From Washington University Medical Department.

3. Exhibit of Early Human Embryos, specimens and Models. By C. M. Jackson, M. D., University of Missouri.

4. Exhibit of Pathological Ophthalmological Specimens. From St. Louis College of Physicians and Surgeons.

5. Exhibit of Specimens of Hypernephroma. From Jackson County Medical Society.

6. Exhibit of Plant Pathology. By Dr. Herman von Schrenck.

7. Exhibit of Selected Specimens. From Barnes Medical College.

8. Comprehensive Collection of Carcinoma Specimens. From St. Louis Medical Society.

In addition to the above there will be microscopic demonstrations, lantern slide talks, and a large collection of single specimens of unusual interest.

The address by Dr. Von Schrenck, Consulting Pathologist of the U. S. Department of Agriculture, will be one of rare attractiveness.

SEMI-CENTENNIAL MEETING.

Jefferson City, May 14, 15, 16, 1907.

PROGRAM.

TUESDAY, MAY FOURTEENTH.

Judicial Council called to order at 9:30 a. m.
House of Delegates called to order at 9:30 a. m.
Roll call and announcement of result.
Reading of minutes of previous meeting.
Reading of President's message and recommendations.
Report of Committee on Arrangements.
Report of Committee on Medical Education.
Report of Committee on Scientific Work.
Report of Committee on Public Policy and Legislation.
Report of Publication Committee.
Report of Treasurer.
Report of Secretary.
Election of Committee on Nominations. (For the nomination of five Vice Presidents, five Councillors and members of the committees on Scientific Work and Public Policy and Legislation).
Election of Delegates to American Medical Association. (Four to elect; two for one year, two for two years).
Introduction of amendments to the Constitution and By-Laws.

REPORT OF COUNCILLORS.

1st District.....E. E. Parrish, Memphis
2nd District.....H. Jurgens, Edina
3rd District.....J. D. Brummall, Salisbury
4th District.....C. R. Buren, Princeton
5th District.....E. H. Miller, Liberty
6th District.....W. E. McKinley, Denver
7th District.....W. T. Elam, St. Joseph
8th District.....L. W. Dallas, Hunnewell
9th District.....C. W. Reagan, Macon
10th District.....Woodson Moss, Columbia
11th District.....W. B. Dorsett, St. Louis
12th District.....F. J. Lutz, St. Louis
13th District.....B. M. Hypes, St. Louis
14th District.....Wm. F. Kuhn, Farmington
15th District.....J. J. Norwine, Poplar Bluff
16th District.....J. D. Porterfield, Jr., Cape Girardeau
17th District.....Frank De Vilbiss, Eugene
18th District.....G. Ettmueller, Jefferson City
19th District.....R. D. Haire, Clinton
20th District.....C. T. Ryland, Lexington
21st District.....M. P. Overholser, Harrisonville
22nd District.....J. R. Buchanan, Nevada
23rd District.....A. R. Snyder, Joplin
24th District.....R. L. Johnson, Rolla
25th District.....T. A. Coffelt, Springfield
26th District.....H. C. Shuttee, West Plains

GENERAL SESSIONS, 7:30 P. M.

ADDRESS OF THE PRESIDENT.....C. H. Wallace, M. D., St. Joseph
ORATION IN MEDICINE.....Wm. F. Kuhn, M. D., Farmington
ORATION IN SURGERY.....Paul Y. Tupper, M. D., St. Louis

Medical Section.

SECOND DAY—WEDNESDAY, MAY 15TH, 1907.

MORNING SESSION—9 O'CLOCK.

Pulmonary Hemorrhage.....C. A. Good, M. D., St. Joseph
Some Forms of Scabies Seen in Private Practice.
Wm. Frick, M. D., Kansas City
Milk.....S. H. Redmon, M. D., Tipton.
Autointoxication.....James Hanks, M. D., Brashear.
Have We Any Infallible Signs, Symptoms or Methods by Which We Can Diagnose Typhoid Fever Earlier Than the End of the First Week?.....T. H. Doyle, M. D., St. Joseph
Blood Pressure and its Relation to Disease.
F. W. Froehling, M. D., Kansas City
Treatment of Pneumonia.....O. H. Brown, M. D., St. Louis

Medical Section.

SECOND DAY—WEDNESDAY, MAY 15TH, 1907.

AFTERNOON SESSION—1:30 O'CLOCK.

SPECIAL ORDER OF BUSINESS.

Report of the Committee on Tuberculosis.

SYMPOSIUM ON TUBERCULOSIS.

Tuberculosis a Communicable Disease.....J. M. Allen, M. D., Liberty
Sanitation and Tuberculosis.....Geo. Homan, M. D., St. Louis
Early Diagnosis of Tuberculosis.....L. M. Warfield, M. D., St. Louis
Duty of the Practitioner in Tuberculosis.....W. S. Allee, M. D., Olean
Consumption and Civilization.....R. O. Cross, M. D., Kansas City
The State Sanitarium.....W. M. Bayliss, M. D., Columbia
Local Medical Organization.....F. Devilbiss, M. D., Spring Garden
Civic Responsibilities.....William Porter, M. D., St. Louis

Posture in Labor.....W. B. Deffenbaugh, M. D., St. Joseph
The Differential Diagnosis Between Chorea Minor and Tic.
William W. Graves, M. D., St. Louis

SECOND DAY.—WEDNESDAY, MAY 15TH.

GENERAL SESSION, 8 P. M.

Exercises in commemoration of the Fiftieth Anniversary, at Frienel's Garden.

Medical Section.

THIRD DAY—THURSDAY, MAY 16TH, 1907.

MORNING SESSION—9 O'CLOCK.

The Eye and the Nervous System.....H. E. Derwent, M. D., Clinton
A Plea for the Cross-Eyed Child.....John Green, Jr., M. D., St. Louis
A Plea for the State Care of Nervous Individuals.
John Punton, M. D., Kansas City
Medical Education; Preliminary and Professional.
H. E. Dunlop, M. D., Canton
What We Have and What We Should Have of Medical Law Governing the Practice of Medicine.....C. B. Hardin, M. D., Kansas City.
Attitude of the Public Toward the Doctor.
H. S. Crawford, M. D., Harrisonville
Medical Scraps.....T. E. Lockwood, M. D., Butler
The Neglected Side of the Profession. O. G. Gleaves, M. D., St. Joseph
The Art of Prescribing.....J. C. Matthews, M. D., Springfield
Some Reflections Concerning the General Practitioner.
J. Robert Buchanan, M. D., Nevada.

Medical Section.

THIRD DAY—THURSDAY, MAY 16TH, 1907.

AFTERNOON SESSION—1:30 O'CLOCK.

Some Reflections Concerning the Status of the Medical Profession
Robt. H. Goodier, M. D., Hannibal
Infantile Intussception.....J. D. Brummall, M. D., Salisbury
Let Us Get Closer to the People...T. L. Bradley, M. D., Warrensburg
Appendicitis from the Standpoint of the General Practitioner.
R. M. Winn, M. D., Ilasco
The Duty of the Examining Surgeon for Life Insurance Companies
A. B. Burgwin, M. D., Fayette
Efficient Protection Against Suits for Alleged Malpractice.
C. F. Briegleb, M. D., St. Clair
The Borderland of Gynecology and Neurology.
Frank Hinchey, M. D., St. Louis
Diabetes Mellitus.....C. C. Leeper, M. D., Braymer
Gonorrheal Arthritis with Report of Cases.
W. E. H. Bondurant, M. D., Memphis
Early Diagnosis of Carcinoma of the Stomach.
Wm. Engelbach, M. D., St. Louis

Surgical Section.

SECOND DAY—WEDNESDAY, MAY 15TH, 1907

MORNING SESSION—9 O'CLOCK.

The Surgical Treatment of Enlarged Prostate.
C. E. Fulton, M. D., Springfield

A Few Points Relative to Prostatectomy.
C. F. Roberts, M. D., Kansas City

Local Anesthesia.....R. D. Haire, M. D. Clinton

Carcinoma of the Breast.....G. A. Beedle, M. D., Kansas City

Present Status of X-Ray Treatment of Malignant Growths.
J. N. Scott, M. D., Kansas City

Cystic Degeneration of the Ovary as a Cause of Dysmenorrhea
W. B. Dorsett, M. D., St. Louis

The Surgical Treatment of Glaucoma.
James Moores Ball, M. D., St. Louis

Surgical Section.

SECOND DAY—WEDNESDAY, MAY 15TH, 1907.

AFTERNOON SESSION—1:30 O'CLOCK.

Large Aneurysm in Scarpa's Triangle; Condition of Patient Eighteen Months After Ligature of Femoral Artery.
L. J. Dandurant, M. D., St. Joseph

Report of a Case of Aneurysm of the Subclavian; Ligature in the First Portion; Recovery.....Herman E. Pearse, M. D., Kansas City

The Treatment of Tubercular Peritonitis with Report of a Case.
H. C. Dalton, M. D., St. Louis.

Congenital Malformation of the Rectum; Report of Cases.
W. H. Coffey, M. D., Kansas City

Stricture of the Rectum.....W. J. McGill, M. D., St. Joseph

Malignant Disease of the Rectum.....Francis Reder, M. D., St. Louis

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SECOND DAY.—WEDNESDAY, MAY 15TH.

GENERAL SESSION, 8 P. M.

Exercises in commemoration of the Fiftieth Anniversary, at Friendel's Garden.

Surgical Section.

THIRD DAY—THURSDAY, MAY 16TH, 1907.

MORNING SESSION—9 O'CLOCK.

Peritoneal Tuberculosis.....J. D. Seba, M. D., Bland
Cholecystectomy vs. Cholecystotomy..W. U. Kennedy, M. D., St. Louis
The Omentum as a Surgical Factor....T. E. Potter, M. D., St. Joseph
Inguinal Hernia.....C. G. Geiger, M. D., St. Joseph
A Protest Against the Use of Taxis in Strangulated Hernia.
A. H. Meisenbach, M. D., St. Louis
Post-Operative Accidents and Sequelæ....L. A. Todd, M. D., St. Joseph
Personal Experiences in the Removal of Ureteral Calculi.
Willard Bartlett, M. D., St. Louis

Surgical Section.

THIRD DAY—THURSDAY, MAY 16TH, 1907.

AFTERNOON SESSION—1:30 O'CLOCK.

The Value of the Roentgen Rays in the Diagnosis of Renal and Ureteral Calculi.....R. D. Carman, M. D., St. Louis
The Effect of Surgical Operation on Diabetic Patients.
Louis T. Riesmeyer, M. D., St. Louis
Relief of Obstinate Deafness of Chronic Middle Ear Disease.
Robert Barclay, M. D., St. Louis
The Tonsillar Ring as an Etiological Factor in Diseases of the Ear, Nose and Throat.....P. I. Leonard, M. D., St. Joseph
Intestinal Obstruction.....Carroll Smith, M. D., St. Louis
Surgical Treatment of Diffuse General Peritonitis; Report of 17 Cases; Recovery of 15 Cases.....John Young Brown, M. D., St. Louis

COUNTY SOCIETY NOTES

CALDWELL COUNTY MEDICAL SOCIETY.

The Caldwell County Medical Society met in Braymer, Thursday, April 4th, in regular session. The attendance was good.

Dr. C. C. Leeper read a paper on pneumonia and Dr. Tinsley Brown presented a paper on pemphigus.

The appointment of Dr. C. C. Leeper as essayist for Missouri Medical Association at a called meeting when but four members were present, and of Dr. W. T. Lindley as Delegate, was approved.

There were six applications for membership. Five were elected and one rejected.

The Society approved of the plan of requiring a minimum of $5.00 for all old line medical examinations where an urinary analysis is required.

The next regular meeting will be held at Kingston in July. – Tinsley Brown, M. D., Reporter.

CASS COUNTY MEDICAL SOCIETY.

The following resolution was passed by unanimous vote and the secretary instructed to forward same to the editor of the State Journal for publication:

Resolved: That the Cass County Medical Society request the Committee on Publication to admit the advertisement of no proprietaries to the pages of the Journal of the Missouri State Medical Association unless such proprietaries have been endorsed by the Council on Pharmacy and Chemistry of the A. M. A.

The Society voted to hold its next meeting in Pleasant Hill, May 2, 1907.

COLE COUNTY MEDICAL SOCIETY.

At the last regular meeting of the Cole County Medical Society the following officers were elected for the ensuing year: C. P. Hough, president; N. T. Leach, vice president; S. V. Bedford, secretary; J. P. Porth, treasurer; J. L. Thorpe, state delegate. The following committees were appointed by the president to arrange for the entertainment of the State Medical Association meeting to be held here May 14th, 15th and 16th:

Arrangements: Doctors Ettmueller and Thorpe.

Exhibitions: Doctors Chastain and Bedford.

Reception: Doctors Clark, Lopp and Hill.

S. V. Bedford, M. D., Secretary.

COOPER COUNTY MEDICAL SOCIETY.

The Cooper County Medical Society met in Boonville on April 2nd, 1907. Members present: Drs. F. R. Smiley, R. L. Evans, P. L. Hurt, A. E. Monroe, Jno. R. Lionberger.

As this meeting was the first one since the January meeting a regular program had not been prepared and the Society occupied its time in the discussion of clinical cases.

Cases were presented by Drs. Hurt, Monroe, Evans and Smiley and discussions of the cases presented followed. Following the presentation and discussion of clinical cases the following resolution was read:

Whereas, it having come to our knowledge that it has become a custom among many of the fraternal organizations and societies to contract with a physician or physicians, usually members of their orders or societies, to obligate themselves as physicians to attend the sick members thereof, under contract, at a price regulated and determined by the society or order, such price or remuneration being much less than that charged for similar services in the same community, thereby debasing and degrading our noble profession, therefore, be it

Resolved: That the Cooper County Medical Society condemn such contract practice and that its members agree and declare that they will not enter into such a contract with any lodge, society or association whatever, except to act as examiner for candidates for membership thereof.

This resolution was discussed by the society and upon motion, it was ordered carried over to the next meeting to await the final action of the society.

There being no further business the society adjourned to meet May 7th, 1907.—Jno. R. Lionberger, Secretary.

GREENE COUNTY MEDICAL SOCIETY.

MEETING OF MARCH 22ND.

We have received letters from the State Board of Health promising their assistance in enforcing the medical practice laws here, citing cases and saying that Osteopaths can not legally practice obstetrics. The committee on open session reported that Professor Carrington would read a paper and appointed the following members to discuss it: Doctors Nixon, Bartlett, Ralston and Prof. E. E. Dodd. Also a paper by Dr. Smith which will be discussed by Doctors Terry, Fortner, Rienhoff and Father Lilly. The meeting is to be held in the Carnegie Public Library Building, April 26th.

The president set aside our meeting of May 10th for the business meeting and appointed Doctors Farnsworth, Rienhoff, Cox, Matthews and Smith as a committee to revise our Fee Bill and furnish a program for that meeting.

MEETING OF APRIL 12TH.

Over thirty were present. The Committee on Public Health and Legislation reported that they had presented our cases to the Prosecuting Attorney and he had promised to look after the illegal practitioners and enforce the law.

Dr. O. N. Carter, of Brookline, and Dr. H. Janss were elected to membership in the society and two new applications were received.

Dr. C. E. Fulton was elected delegate to represent Greene county at the annual meeting to be held at Jefferson City.

Dr. Wm. Rienhoff read an interesting and scientific paper entitled "Some Remarks on the Treatment of Pneumonia." It was a long paper and he entered deeply into the subject. He said in part:

"Time experiments or discovery has made no improvement in the mortality of pneumonia so it still remains at 20 per cent. as an average.

"The discovery of the diplococcus lanceolatus as the cause of pneumonia has added nothing to the treatment, except a lot of specific remedies which have not proven to be reliable.

"The pneumococcus has been so much in evidence that the pathology of the living cells of the patient has almost been lost sight of.

Of the specific remedies it is doubtful whether they reach the cocci in the proper strength to do any good, or have the same effect that they do in the test tubes.

The alkaline treatment based on the principle of restoring the alkalinity of the blood, impaired by the pneumonic process, is wrong in light of recent investigation into the physico-chemical condition of the blood and electro-ozonization is rather a curiosity.

"The salicylic preparations alone of the drugs in question seem to have a beneficial effect, but continued trials will have to be made before their value can be proven.

"The treatment must be symptomatic, based on physiologic and pathologic facts and observations. If the toxic effects of the pneumococci are greater than the body can combat the patient will die.

"Over half of the patients need no help; one-third of the balance, owing to the toxic effects, are beyond help; it is for the remainder that medical aid is necessary."—J. L. ORMSBEE, Secretary.

HARRISON COUNTY MEDICAL SOCIETY.

The regular quarterly meeting of the Harrison County Medical Society was held at Bethany on July 17, 1906.

Splendid papers were read by Dr. C. A. Mitchell of Blythdale, Dr. Jacob Geiger of St. Joseph, and Dr. W. E. McKinley of Denver, Mo.

The election of officers for 1907 resulted as follows: President, Dr. C. A. Mitchell, Blythdale; vice-president, W. H. Wiley, Ridge-

way; secretary and treasurer, Dr. F. H. Broyles, Bethany.

Our next meeting was held at Bethany on October 16, 1906, when Dr. A. H. Vandivert read an excellent paper on "Prevention of Tuberculosis," and Dr. W. E. McKinley of Denver, Mo., read a paper on "Chronic Rhinitis." Dr. G. W. Seller of Mt. Moriah, and Dr. G. E. Gwinn presented interesting clinics.

Our last meeting was held at Bethany on April 16th, inst. This was a good meeting, although not largely attended.

Dr. J. K. Chipp of New Hampton, Dr. Wm. Swint, Dr. John Shibley and Dr. R. E. Ferguson of Gilman City, on applicatnon were elected to membership.

Dr. F. H. Broyles was elected a delegate to State Medical Society, with Dr. Geo. E. Gwinn as alternate.—F. H. Broyles, M. D., Secretary.

HOLT COUNTY MEDICAL SOCIETY.

The second quarterly meeting of the Holt County Medical Society was held at Oregon, April 4th. The applications of several physicians were taken up, and upon favorable action they were elected to membership.

Among the communications was one from a Society in an adjoining County, asking the co-operation of this society in forming a new Councillor District to be composed of Andrew, Atchison, Nodaway and Holt Counties. After due consideration by this society our delegate was instructed to assist in bringing about the change to form a new District out of the counties named.

The afternoon was given over to the discussion of Meningitis and Puerperal Fever.

The next meeting will be held at Big Lake, July 18.—Jno F. Chandler, M. D., Secretary.

JASPER COUNTY MEDICAL SOCIETY.

The Jasper County Medical Society met in regular session on April 15th. There were fourteen members present.

Dr. A. B. Clark reported a case of a child of ten years who had swallowed an open safety pin on Thursday of last week. He saw the child immediately after the accident and took her to an x-ray but could not locate the pin. He gave her large doses of castor oil: got copious action of the bowels but no pin. Put the patient on solid food Saturday and on Sunday at 2 p. m. the pin was passed. A small amount of blood was passed with the feces.

Dr. Matthews was not in favor of giving purgatives in such cases. He thought potatoes was the treatment. Dr. Donohue stated that he preferred oat meal in large quantities.

Dr. Barnett read a paper on anemia. It was freely discussed.

Dr. R. L. Neff reported a very interesting case of periodic tachycardia in a woman, 35 years old; the patient had been having the peculiar heart attacks since 16 years of age. She would have an attack every two weeks to four months, coming on suddenly and stop suddenly; would last from 15 to 45 minutes; patient was very weak during the attacks and sometimes for two or three days thereafter. The heart sounds were normal but pulse so rapid it was impossible to count it. Respiration normal and patient warm. Three weeks ago was the worst attack she had ever had; lasted for two hours and the patient was very weak.

The following applications for membership were read and referred to Board of Censors for investigation: Doctors Julian Berry, Webb City; Herbert C. Powers, Chas. A. Talbott, Chitwood; H. L. Isherwood, Carl Junction; Geo. Sanz, Webb City, and Joel E. Johnson, Joplin.

It was moved and carried that the secretary be instructed to write a letter offering our thanks for the courteous treatment extended to us during the recent meeting held in Galena.

Dr. Matthews read an invitation to the society from the doctors of Carthage to attend the opening of the Carthage Hospital, Thursday, April 18th, 1907.

Moved and carried that Committee on Program hold a meeting and formulate a program for six months and report.

Moved and carried that the society shall meet every Tuesday night in each week instead of first and third Mondays of each month.

Moved, seconded and carried that the secretary be instructed to invite the Cherokee County Society, of Kansas, to attend our meeting to be held the fourth Tuesday of May, 1907. A committee of three was appointed to arrange to entertain them. The president appointed Doctors Watkins, Donohue and Barnett.

Dr. H. R. Haas was appointed as essayist for next regular meeting.—R. M. James, Secretary.

JACKSON COUNTY MEDICAL SOCIETY

MEETING OF MARCH 5TH.

The regular weekly meeting of the Jackson County Medical Society was held in Atheneum Club rooms Tuesday evening, March 5th. The Chair read an amendment to our by-laws which in substance requires the secretary to send written notices of applicants for membership to each member of the society during the time between which such applications have been read in regular session and the time for voting on same by the Society; and, further, that applications for membership shall be voted upon at the first regular meeting of each month only, instead of at every meeting, as heretofore.

Doctors F. W. Froehling and Walter J. Lowrey having been re-

ported favorably by the committee, were by ballot unanimously, voted members of the society.

Dr. Wm. Frick read a paper entitled "Pathology and Treatment of Epithelioma," giving the following classification:—1. Superficial; 2. Deep or infiltrating. 3. Papillary or fungating. His treatment consisted in the superficial type of pastes, caustics, plastics, etc. He advocated the use of the x-ray under most modern methods of application. For the deep and papillary types surgery was to be considered the only hope and then only when taken before metastasis had begun. Those taking part in the discussion were Doctors Howard Hill, F. J. Hall, O. H. McCandless, J. F. Binnie, B. E. Fryer, E. H. Skinner, A. E. Hertzler, F. H. Brunig. Dr. Frick then closed the discussion.

Dr. E. H. Skinner next presented a paper entitled "Care of the Patient in Transit." This paper was full of practical points calling to the attention of the physician the many different necessities with which he is confronted in preparing his patient for a journey; also speaking of the failure on the part of the railroads to provide conveniences for the sick as well as their neglect to protect the public against contagion, which under such conditions must necessarily often occur. Those taking part in the discussion were Doctors Chester Hall, B. C. Hyde and R. E. Castelaw.

MEETING OF MARCH 12TH.

Under Miscellaneous business Dr. G. Wilse Robinson read a resolution endorsing the movement on the part of the Missouri University in attempting to establish a medical department in Kansas City. A motion was made that said resolution be adopted and that copies of same be sent, one to the Curators of University, one to the Mayor of the City and one to the Upper and Lower House; motion carried unanimously. A motion was then made and carried that a committee of three be appointed to deliver said resolutions whereupon the Chair appointed Doctors G. Wilse Robinson, A. E. Hertzler, and C. C. Conover.

Dr. Franklin E. Murphy, having been requested by the society some weeks previous to prepare a paper on "Immunity" read a paper which was most complete, giving a resume of all theories expressed up to the present time, but brought special emphasis to bear upon Ehrlich's side chain theory.

His paper was accompained by colored charts which served to make the theory more easily understood; he spoke of protective inoculation and the relative value of the different serums, of immunity established by attenuated cultures and by gradual increase in dosage of toxines. He also mentioned the methods used in the Pasteur Institue of inoculating against rabies by the gradual ascending scale of virulent cord emulsion.

Those taking part in the discussion were Doctors J. Z. Chambers,

Scott P. Child, B. E. Fryer, Wm. Frick and Hal Foster. Dr. Murphy then closed the discussion.

By motion Dr. H. C. Anderson's paper on "Anesthetics" was postponed to a future meeting and the society then passed into executive session for transaction of such business as might come before it.

MEETING OF MARCH 18TH.

A special meeting was held at office of Secretary at which time resolution of condolence were adopted in consideration of the death of Mrs. Dove, wife of our highly esteemed president. Never has a death outside a member of the society been more keenly felt than this one, and the noble, honorable life of Dr. Dove and the high esteem in which he is held by both the physicians of our city and his many friends outside the profession who know him, made his sorrow our own. Flowers were also sent.

MEETING OF MARCH 19TH.

Dr. Max Goldman presented a paper entitled "Chorea Minor: A Consideration of its Pathogenesis." The essayist spoke of the strong susceptibility to the disease in children of a nervous temperament and gave as exciting causes, injuries, intestinal derangement and faulty metabolism. In conclusion he reported a case that occurred in his private practice, the exciting cause of which was a kick on the head by a playmate.

Dr. Scott P. Child opened the discussion. Doctors B. E. Fryer, F. E. Murphy, J. Z. Chambers and H. O. Leonard also spoke. Dr Goldman closed discussion.

Dr. I. J. Wolf then presented a paper on Glenard's disease, a downward displacement of one or all the abdominal viscera. The Doctor gave as 50 per cent. of all women and 20 per cent. of all men coming under his observation as being more or less affected, being found at all ages, children not exempt. He spoke of the following being the causes of the disease:—1. Congenital predisposition, where daughters and sons often suffer. 2. Inanition following acute fevers. 3. Tight fitting dresses and corsets. 4. Frequent pregnancy. Treatment consisted not alone in properly applying adhesive plasters or bandages to the abdomen but the use of tonics, proper food, etc., as well as control of the mind must be adjuncts to treatment. He did not approve transfixion of organs by surgical means.

Dr. R. T. Sloan opened the discussion. He believed that when all other methods failed, the case should be handed over to the surgeon. Others taking part in the discussion were Doctors Rob Schauffler, F. W. Froehling, H. O. Leonard and A. E. Hertzler. Dr. Wolf closed the discussion.

The Society then passed into executive session to transact such business as might come before it.

MEETING OF MARCH 26TH.

This being the last meeting of the month it was devoted exclusively to the presentation of patients, pathological specimens and instruments.

1. Dr. Taylor demonstrated an electric pad, or appliance, to be used in place of hot water bottle; also a heat readiator which furnished heat by means of light rays.

2. Dr. Edmonson presented a case of club foot (double equino varius) demonstrating a brace of his own devise which was controlled by coil spring. Treatment seemed to be effectual. Dr. Binnie in speaking favored operation on these cases.

3. Dr. Hugh Miller presented a case of acute catarrhal sinusitis in a man 23 years old; treatment had been local with good results. Doctors J. W. Sherer and B. E. Fryer discussed this case.

4. Dr. F. W. Froehling next presented a specimen of carcinoma of the jejunum; he also read a short paper which he had prepared relative to the case, laying special stress upon the difficulty in diagnosis as to locality of tumor. Dr Binnie, in opening the discussion, reported an interesting case of carcinoma of the pancreas. Others discussing the case were Doctors R. T. Sloan, St. Elmo Sanders, R. M. Schauffler, P. C. Hyde, Dr. Froehling then made a few closing remarks.

5. Dr. E. R. Curry next presented a parturient uterus which was so complicated with large fibroids especially near the os, as to necessitate its removal. In addition to presenting the specimen the doctor gave a most interesting report of the case. Doctors H. O. Leonard opened the discussion. Others speaking were Doctors Sanders, Van Eman, Brunig, McCrea and C. M. Fulton. Dr. Curry then closed the discussion. E. L. STEWART, M. D., Secretary.

KNOX COUNTY MEDICAL SOCIETY.

Knox County Medical Society met in regular session on April 1st.

A motion was made that the secretary be exempted from payment of annual dues. Carried.

Dr. A. R. Wilsey of Hurdland, read a very interesting paper on the treatment of rheumatism. The paper was discussed by all present.

Dr. F. E. Luman of Barnes, read a paper entitled "The Doctor as a Business Man." This paper was also thoroughly discussed.

Dr. A. R. Wilsey of Hurdland was commissioned to read a paper at the Jefferson City meeting.

The following officers were elected: President, Dr. L. S. Brown (reelected); vice-president, Dr. J. R. Northcutt; secretary-treasurer, Dr. H. Jurgens; Censor for three years, Dr. F. E. Luma, Baring. Delegate Dr. A. R. Wilsey, Hurdland.—H. JURGENS, M. D., Secretary.

LAFAYETTE COUNTY MEDICAL SOCIETY.

The regular meeting of Lafayette County Medical Society was held at Higginsville, March 12th. The attendance was unusually good.

The Society decided to employ an attorney to assist in the collection of evidence against and the prosecution of several illegal and criminal practitioners said to be practicing in our county at present.

A resolution passed unanimously to make $5.00 the minimum fee for old line Life Insurance examinations.—C. T. Ryland, M. D., Secretary.

SHELBY COUNTY MEDICAL SOCIETY.

The Shelby County Medical Society met at Shelbina, March 29th. Owing to bad roads and poor attendance officers were not elected at the proper time, hence the election of officers at this meeting. The following were elected: President, Dr. J. D. Smith, Shelbina; vice-president, Dr. D. A. Dobson, Hunnewell; secretary-treasurer, A. M. Wood, Lentner; Delegate, Chas. Chapman, Shelbina; Censors, W. W. Owen, three years, Oak Dale; J. R. Daniel, two years, Clarence; R. E. Maupin, 1 year, Shelbyville.

Dr. Dallas reported case simulating Grave's disease in a girl aged 16, whose mother had died of the disease. Patient is improving under treatment.

Dr. Singleton presented a 22 months old child who had had laryngeal diphtheria which necessitated tracheotomy. On the fourth day paralysis of throat muscles occurred. Nourishment by stomach and rectal tubes was introduced for ten days after which recovery was good. A good discussion on diphtheria followed.

Adjourned to meet in April.—A. M. Wood, Reporter.

ST. LOUIS COUNTY MEDICAL SOCIETY.

The St. Louis County Medical Society met on April 13th, at Kirkwood with nineteen members present. Dr. August Maisch, of Manchester, was elected to membership.

Dr. R. D. Moore read a paper entitled "The Modern View of Immunity" which was followed by a paper by Dr. R. C. Forsyth along similar lines entitled "The Present State of Serum Therapy."

A good program is assured for the meeting in May.—R. D. Moore, M. D., Reporter.

ST. LOUIS MEDICAL SOCIETY.

The recently organized Ophthalmic Section of the St. Louis Medical Society held its inaugural meeting February 13, 1907, in the boardroom of the Medical Library Building, 3525 Pine street.

The interest manifested by the ophthalmologists of the society in this section is attested by the fact that 19 out of a total present membership of 25 were present.

The chairman, Dr. Barck, made a few introductory remarks pointing out the need of an organization like the Ophthalmic Section to supply the scientific requirements of specialist members in a general medical body. He felt that nothing but good could accrue from this move and asked the hearty co-operation of the members in the scientific work of the section.

Dr. W. A. Shoemaker presented a patient with a gun-shot wound of the globe, and exhibited x-ray photographs.

Dr. J. M. Ball presented a patient with diabetic retinitis.

Dr. Wiener spoke of the x-ray localization of foreign body within the globe, by Sweet's method.

In the discussion, Dr. Wells, Roentgenologist to the Skin and Cancer Hospital, demonstrated Sweet's method together with a valuable modification of his own. At the conclusion of the discussion Dr. Wells was invited by the section to prepare a formal paper on Sweet's method as modified by him for presentation at the next meeting.

Dr. N. M. Semple described an operation for the relief of symblepharon, with the aid of paraffine plates.

Dr. Green demonstrated the astigmatic charts of Dr. F. H. Verhoeff.

Dr. Ball read a paper entitled "A Sketch of the Life of George Frick," (author of the first American text-book on ophthalmology).

The following members were present: Drs. Barck, Charles, Jennings, C. Loeb, Muetze, Buckwalter, Gross, Henderson, Higbee, Semple, Williamson, Luedde, Owen, Reinders, C. W. Parker, Wiener, W. A. Shoemaker, J. M. Ball, John Green, Jr. Visitors: Drs. Hoge, Wells, Wm. W. Graves.

OFFICIAL ROSTER

Missouri State Medical Association

ORGANIZED 1857

Members of Affiliated County Societies

ADAIR COUNTY.

Barnes, F. M., Brashear, Mo.
Bulkley, J. F., Loeffler, Mo.
Callison, E. C., Kirksville, Mo.
Duffie, W. M., Milard, Mo.
Grim, E. A., Kirksville, Mo.
Grim, E. C., Kirksville, Mo.
Gashwiler, J. S., Novinger, Mo.
Hall, W. S., Novinger, Mo.
Hanks, James, Brashear, Mo.
Jurgins, L. P., Kirksville, Mo.
Martin, J. W. Kirksville, Mo.
McConnell, J. L., Connelsville, Mo.
Martin, W. W., Sperry, Mo.
Munn, W. E., Pure Air, Mo.
Noe, L., Connelsville, Mo.
Nunn, J. C., Novinger, Mo.
Sparling, G. A., Kirksville, Mo.
Wilson, C. S., Green City, Mo.
Williams, J. W., Kirksville, Mo.

ANDREW COUNTY.

Allen, C. L., Casby, Mo.
Balckow, F. D., Avenue City, Mo.
Darley, W. E., Avenue City, Mo.
Bennett, E. C., Bolckow, Mo.
Best, W. W., Bolckow, Mo.
Bryant, D. B., Savannah, Mo.
Bailey, W. H., Savannah, Mo.
Beever, S. S., Amazonia, Mo.
Carpenter, E. H., Helena, Mo.
Hasher, J. C., Rosendale, Mo.
Jefferies, C. O., Savannah, Mo.
Kerr, W. M., Savannah, Mo.
Keeley, R. R., Amazonia, Mo.
Martin, W., Savannah, Mo.
Mallison, J. Q., Bolckow, Mo.
Miles, B. E., Filmore, Mo.
Myer, W. C., Savannah, Mo.
Parks, D. V., Filmore, Mo.
Southerland, J. C., Savannah, Mo.

ATCHISON COUNTY.

Chamberlain, G. W. E., Rockport, Mo
Chamberlain, O. M. C., Rockport, Mo
Holliday, J. A., Tarkio, Mo.
Hunter, J. A., Fairfax, Mo.
Hunter, Owen A., Fairfax, Mo.
Lewis, A. E. Rockport, Mo.
Lott, G. W., Westboro, Mo.
McMichael, A., Rockport, Mo.
Postlewaite, J. A., Tarkio, Mo.
Richards, E. E., Tarkio, Mo.
Safford, W. G., Tarkio, Mo.
Settles, Chas. T., Rocknort, Mo.
Strickland, W. R., Rockport, Mo.
Taylor, E. P., Fairfax, Mo.
Waugh, C. M., Tarkio, Mo.
Whiteford, E. P., Westboro, Mo.

AUDRAIN COUNTY.

Berry, R. W., Mexico, Mo.
Bland, W. W., Vandalia, Mo.
Cave, E. S., Mexico, Mo.
Coil, P. E., Mexico, Mo.
Cooper, J. C., Rowena, Mo.
Cornett, W. E., Rush Hill, Mo.
Crawford, M. E. Mexico, Mo.
Douglass, W. H., Benton City, Mo.
Flynt, J. F., Moline, Mo.
Gibbs, R. T., Mexico, Mo.
Griffin, Fred, Mexico, Mo.
Lofton, E. A., Laddonia, Mo.
McCall, W. K., Worcester, Mo.
McFarland, W. W., Mexico, Mo.
Parish, J. C., Vandalia, Mo.
Rodes, N. R., Mexico, Mo.
Rodes, W. R., Mexico, Mo.
Rothwell, C. A., Mexico, Mo.
Toalson, G. F., Mexico, Mo.
Wallace, J. E., Mexico, Mo.

BARTON COUNTY.

Allee, G. D., Lamar, Mo.
Brown, C. F., Lamar, Mo.
Brooks, J. M., Golden City, Mo.
Coleman, W. O., Nashville, Mo.
Duckett, T. H., Millford, Mo.
Gish, G. J. P., Minden Mills, Mo.
Guthrie, J. F., Golden City, Mo.
Griffin W. L., Lamar, Mo.
Locker, G. E., Iantha, Mo.
McComb, J. L., Lamar, Mo.
Miller, E. F., Verdella, Mo.
Stone, A. B., Lamar, Mo.
Van Meter, A., Lamar, Mo.
Warren, J. F., Boston, Mo.

BARRY COUNTY.

Bailey, W. T., Cassville, Mo.
Chandler, S. W., Cassville, Mo.
Dusenbury, C. T., Monett, Mo.
Gladden, R. B., Purdy, Mo.
Hagler, M. C., Monett, Mo.
Hawkins, A. S., Monett, Mo.
Jones, Alva, Monett, Mo.
Leath, L. R., Butterfield, Mo.
Miller, D. E., Monett, Mo.
Mitchell, D. L., Cassville, Mo.
Mitchell, John, Purdy, Mo.
Newman, S. A., Cassville, Mo.
Northcut, L. B., Washburn, Mo.
Pound, J. S., Shell Knob, Mo.
Russell, J. M., Monett, Mo.
Searcy, Wm. P., Exeter, Mo.
Trumbower, M. R., Monett, Mo.
West, Wm. M., Monett, Mo.

BATES COUNTY.

Boulware, T. C., Butler, Mo.
Chastain, E. N., Butler, Mo.
Compton, U. J., Pleasant Gap, Mo.
Forster, T. W., Butler, Mo.
Gilmore, E. E., Adrian, Mo.
Hulett, R. F., Rich Hill, Mo.
Lane, G. G., Sprague, Mo.
Lockwood, T. F., Butler, Mo.
Miller, Sherman, Urich, Mo.
Powers, C. E., Amoret, Mo.
Whipple, W. L., Pleasant Gap, Mo.
Williams, J. H., Hume, Mo.
Zey E. G., Butler, Mo.

BENTON COUNTY.

Carl, C. A., Cross Timbers, Mo.
Davis, S. O., Warsaw, Mo.
Dick, M., Cole Camp, Mo.
Dillon, Marrion, Fairfield, Mo.
Greeson, G. A., Lincoln, Mo., R. F. D.
Holtzen, E. E., Cole Camp, Mo.
Jones, W. G., Lincoln, Mo.

Rhodes, E. L., Lincoln, Mo.
Savage, H. G., Warsaw, Mo.
Stratton, S. O., Edmonson, Mo.
Walton, J. H., Ionia, Mo.

BOONE COUNTY.

Angell, W. E., Rocheport, Mo.
Austin, C. W., Columbia, Mo.
Calvert, W. J., Columbia, Mo.
Chinn, E. H., Rocheport, Mo.
Fisher, J. M., Columbia, Mo
Gentry, E. N., Sturgeon, Mo.
Gordon, J., Columbia, Mo.
Hampton, Z. M., Centralia, Mo.
Hickerson, T. J., Centralia, Mo.
Jackson, C. M., Columbia, Mo.
McAlester, A. W., Columbia, Mo.
McAllister, W. A., Centralia, Mo.
McComas, A. R., Sturgeon, Mo.
Meyer, Max, Columbia, Mo.
Miller, W. McN., Columbia, Mo.
Moss, Woodson, Columbia, Mo.
Nifong, F. G., Columbia, Mo.
Norris, W. A., Columbia, Mo.
Noyes, Guy, Columbia, Mo.
Parmer, Chas. C., Hartsburg, Mo.
Parmer, J. E., Hartsburg, Mo.
Thornton, J. E., Columbia, Mo.

BUCHANAN COUNTY.

(All addresses St. Joseph, Mo., unless otherwise stated).

Bansbach, J. J., 823 Fred. Ave.
Ballard, E. S., King Hill Bldg.
Bauman, L. C., 4th & Edmond.
Bell, J. M., 710 Felix St.
Bigham, D. F., Easton, Mo.
Bode, L. F., 520 S. 6th St.
Bowen, J. K. P., Moss Bldg.
Byrd, Chas. F., 2301 St. Joe Ave.
Byrne, J. I., Bank of Commerce Bldg.
Campbell, O. B., Hughes Bldg.
Carpenter, S. F., Hughes Bldg.
Cloud, S. E., 1302 N. 3rd.
Dandurant, L. J., 8th & Felix St.
Davis, E. C., 2018 S. 11th St.
Davis, W. B., 518 Francis.
Deffenbaugh, W. B., 710 Felix St.
Donelan, E. A., 809 Francis St.
Dowell, Robt. F., Agency, Mo.
Doyle, T. H., 107 N. 9th. St.
Doyle, J. M., 107 N. 9th St.
Dunsmore, J. M., 9th & Charles St.
Elam, W. T., Logan Blk.
Farber, M. J., 520½ Francis St.
Fassett, Chas. Wood, Krug Park Pl.
Ferguson, J. W., 710 Felix St.
Forgrave, H. S., King Hill Bldg.
Forgrave, L. R., Logan Blk.
French, J. A., 408 S. 8th St.
Fulkerson, P. P., 6th & Francis St.
Geiger, C. G., 613 Francis.
Geiger, Jacob, 613 Francis St
Gebhart, O. C., King Hill Bldg.
Gleaves, O. G., 3117 N. 11th St.
Goetz, W. F., 7th & Edmond.
Good, C. A., Logan Bldg.
Graham, J. K., Logan Bldg.
Gray, A. L., 122 S. 9th St.
Green, H. A., 704 Felix St
Heddens, J. W., 614 Francis St.
Holley, A. E., Rock Island Bldg.
Hull, W. S. Faucett, Mo.
Humfreville, D. L., 518 Francis St.
Islaub, J. W., 207 S. 14th St.
Kenney, W. L., 6th & Felix St.
Kessler, S. F., 720 Francis St.
Lee, Herbert, Ballinger Bldg.
Leonard, P. I., 613 Francis St.
Lockwood, W. D., 407½ Illinois Ave.
Long, L. S., 820 Edmond St.
McCoy, I. H., 710 Felix St.
McGill, W. J., King Hill Bldg.
McGlothlin, A. B., 720 Francis St.
McInerney, Joseph M., 4th & Edmond.
Mayes, J. W., Easton, Mo.
Minton, W. H., King Hill Bldg.
Morton, Daniel, King Hill Bldg.
Morrison, W. S., Rushville, Mo.
Osborn, J. F., 2228 S. 6th St.
Owens, J. F., Ballinger Bldg.
Patterson, Frederick A., 205 Hughes Bldg.
Paul, T. M., 825 Fred. Ave.
Pitts, Barton, Pitts Bldg.
Potter, T. E., 7th & Edmond St.
Reynolds, J. B., 417 Francis St.
Richardson, W. H., Rock Island Bldg.
Riley, J. B., Commercial Bldg.
Sampson, Chris. M., 115 N. 5th St.
Sampson, J. H., 115 N. 5th St.
Senn, Geo., 9th & Jule St.
Schmid, W. F., Pitts Bldg.
Simcoe, Charles B., 613 Francis St.
Smith, B. H., Hosp. No. 2.
Smith, J. C., Hosp. No. 2.
Spencer, F. H., Moss Bldg.
Stamey, J. Thomas, 2624 St. Joe Ave.
Thomas, C. E., Commercial Bldg.
Thompson, G. R., Hosp. No. 2.
Timerman, A. R., 4101½ Ill. Ave.
Todd, L. A., Logan Bldg.
Toothaker, B. W., Hughes Bldg.
Walker, H. L., 926 N. 3rd St.
Wallace, C. H., Logan Blk.
Willman, R., 301 N. 11th St.
Woodson, C. R., Hosp. No. 2.
Woodson, L. B., Rushville, Mo.

BUTLER COUNTY.

Caldwell, Victor, Poplar Bluff, Mo.
Dewitt, Eskew, Poplar Bluff, Mo.
Johnson, T. P., Fisk, Mo.
Kendall, A. W., Poplar Bluff, Mo.
Mott, J. W., Poular Bluff, Mo.
Norwine, J. J., Poplar Bluff, Mo.
Rowe, A. R., Poplar Bluff, Mo.
Seybold, Ira W., Poplar Bluff, Mo.
Williamson, C. W., Poplar Bluff, Mo.
Windsor, A., Poplar Bluff, Mo.
Wright, C. O., Poplar Bluff, Mo.

CALDWELL COUNTY.
No Report Received.

CALLAWAY COUNTY.

Baker, N. F., Fulton, Mo.
Berry, J. W., Reform, Mo.
Christian, C. H., New Bloomfield, Mo.
Crews, R., M. Williamsburg, Mo.
Davis, J. R., Mokane, Mo.
Harrison, J. F., Fulton, Mo.
McCall, G. D., Fulton, Mo.
Moore, J. G., Fulton, Mo.
Roots, G. F., Tebbitts, Mo.
Williams, P. E., Fulton, Mo.
Yates, Martin, Fulton, Mo.
Young, D. H., Fulton, Mo.

CAMDEN COUNTY.

Claiborn, E. G., Decaturville, Mo.
Clark, W. J., Linn Creek, Mo.
Ford, J. S., Linn Creek, Mo.
Hicks, E. S., Macks Creek, Mo.
Mills, Sherman, Macks Creek, Mo.
Moore, Geo. M., Linn Creek, Mo.
Moulder, G. A., Linn Creek, Mo.
Myers, G. T., Macks Creek, Mo.

CAPE GIRARDEAU COUNTY.

Adkins, R. F., Jackson, Mo.
Chandler, J. J., Lutesville, Mo.
Chostner, N. F., Dutchtown, Mo.
Cunningham, H. L., Cape Girardeau, Mo.
Dalton, A. E., Friedheim, Mo.
Ellis, J. L., Oak Ridge, Mo.
Hays, W. B., Jackson, Mo.
Henderson, R. F., Cape Girardeau, Mo.
Higdon, E. E., Allenville, Mo.
Hope, D. H., Cape Girardeau, Mo.
Howard, W. N., Cape Girardeau, Mo.
Nettles, F., Cape Girardeau, Mo.
Porterfield, J. D., Jr., Cape Girardeau, Mo.
Rosenthal, M., Cape Girardeau, Mo.
Sander, C. A., Marble Hill, Mo.
Schultz, G. B., Cape Girardeau, Mo.
Statler, W. K., Oak Ridge, Mo.
Tarlton, G. W., Cape Girardeau, Mo.
Vineyard, G. W., Jackson, Mo.
Walker, G. W., Cape Girardeau, Mo.
Wichetrich, R. F., Cape Girardeau, Mo.

Winters, H. S., Cape Girardeau, Mo.
Witmer, C. M., Marble Hill, Mo.
Wilson, E. H. G., Cape Girardeau, Mo.
Woods, S. E., Jackson, Mo.
Yount, W. E., Cape Girardeau, Mo.

CARROLL COUNTY.

Baird, W. C., Bogard, Mo.
Boggs, J. D., Roads, Mo.
Brown, H. G., Boswor'h, Mo.
Cook, R. F., Carrollton, Mo.
Cooper, J. C., Carrollton, Mo.
Craton, M. W., Carrollton, Mo.
Highsmith, G. R., Carrollton, Mo.
Miller, R. M., Bogard, Mo.
Samuels, L., Carrollton, Mo., R. F. D. No. 6.
Stephenson, J. T., Tina, Mo.
Tull, H. W., Carrollton, Mo.

CARTER-SHANNON COUNTY.
No Report Received.

CASS COUNTY.

Adair, T. W., Archie, Mo.
Anderson, G. M., Pleasant Hill, Mo.
Barrett, W. H., Harrisonville, Mo.
Beckman, Wm. S., Strassburg, Mo.
Brierly, H. A., Peculiar, Mo.
Burney, R. H., Freeman, Mo.
Chaffin, W. F., Raymore, Mo.
Clemons, W. M., Cleveland, Mo.
Conger, D. W., Harrisonville, Mo.
Crawford, H. S., Harrisonville, Mo.
Elder, A. R., Harrisonville, Mo.
Ellis, F. B., Garden City, Mo.
Farnsworth, A. D., Drexel, Mo.
Farrow, G. W., East Lynne, Mo
Foster, F. W., East Lynne, Mo.
Hammond, Mart, Raymore, Mo.
Jerard, H., Pleasant Hill, Mo.
Keller, K. G., Freeman, Mo.
Loat, B. B., Archie, Mo.
Overholser, M. P., Harrisonville, Mo.
Palmer, W. C., Dayton, Mo.
Prentiss, H. S., Pleasant Hill, Mo.
Ramey, R. D., Garden City, Mo.
Rhoades, M. H., Austin, Mo.
Schoor, A. H., Adrian, Mo
Schoor, E., Garden City, Mo.
Smith, A. M., Pleasant Hill, Mo.
Triplett, J. S., Harrisonville, Mo.
Yeagle, R. P., Pleasant Hill, Mo.

CEDAR COUNTY.

Brown, R. A., Stockton, Mo.
Crawford, R. O., El Dorado Springs, Mo.
Dawson, J. W., El Dorado Springs, Mo.
Dunnaway, L. T., Caplinger Mills, Mo.
Edgar, C. A., El Dorado Springs, Mo.
Hill, K., Eldorado Springs, Mo.
Holmes, A. T., Jerico, Mo.
Liston, E. H., Balm, Mo.
Marr, R. B., Filley, Mo.
Mynott, A. J., Jerico Springs, Mo.

CHARITON COUNTY.

Austin, M. B., Salisbury, Mo.
Banning, T. F., Salisbury, Mo.
Billeter, W. I., Bynumville, Mo.
Brown, G. W., Triplett, Mo.
Brummall, J. D., Salisbury, Mo.
Baker, W. L., Salisbury, Mo.
Dewey, W. T., Keytesville, Mo.
Epperly, R. G., Prairie Hill, Mo.
Gaines, J. R., Mussell Fork, Mo.
Hardy, J. W., Sumner, Mo.
Hawkins, G. W., Triplett, Mo.
Jennings, C. A., Salisbury, Mo.
Knott, I., Keytesville, Mo.
Kirkpatrick, H. E., Salisbury, Mo.
Lawhorn, C. W., Forest Green, Mo.
Lewis, A. L., Salisbury, Mo.
McAdam, J. D., Prairie Hill, Mo.
McEwen, Oliver, Shannondale, Mo.
Parker, I. H. P., Salisbury, Mo.
Pitney, Orville, Forest Green, Mo.
Tatum, Harry C., Brunswick, Mo.
Temple, C. H., Rockford, Mo.
Todd, W. T., Forest Green, Mo.
Wallace, J. S., Brunswick, Mo.
Welch, J. F., Salisbury, Mo.

CHRISTIAN COUNTY.

Brown, F. H., Billings, Mo.
Bruton, J. W., Ozark, Mo.
Cheatham, R. F., Clever, Mo.
Farthing, R. R., Sparta, Mo.
Laer, T. R., Billings, Mo.
Nagel, P. E., Billings, Mo.
Robertson, J. A., Ozark, Mo.
Smith, W. L., Sparta, Mo.
Young, J. C., Ozark, Mo.

CLARK COUNTY.

Bridges, J. R., Kahoka, Mo.
Callihan, R. G., Luray, Mo.
Crumley, A. C., Wyaconda, Mo.
Geeslin, P. A., Luray, Mo.
Haase, Freeman, Revere, Mo.
Hiller, F. B., Kahoka, Mo.
Hinron, C. A., Revere, Mo.
Rebo, L. A. S., Alexandria, Mo.
Reese, H. S., Wayland, Mo.
Sisson, W. B., Kahoka, Mo.
Teel, A. W., Kahoka, Mo.
Young, J. A., Wyaconda, Mo.

CLAY COUNTY.

Allen, J. M., Liberty, Mo.
Ashley, M. A., Excelsior Springs, Mo.
Bogart, T. N. Excelsior Springs, Mo.
Fulton, F. H., Lathrop, Mo.
Gaines, J. J., Excelsior Springs, Mo.
Griffin, J. M., Excelsior Springs, Mo.
Jones, H. S., Linden, Mo.
Jones, J. L., Linden, Mo.
Lightfoot, F., Excelsior Springs, Mo.
Lowrey, Ernest, Excelsior Springs, Mo.
Mathews, F. H., Liberty, Mo.
Miller, E. H., Liberty, Mo.
Sevier, R. E., Liberty, Mo.
Suddarth, C. H., Smithville, Mo.
Ralph, A. B., Missouri City, Mo.
Rice, J. T., Excelsior Springs, Mo.
Rice, J. J., Kearney, Mo.
Rothwell, J. H., Liberty, Mo.
Rowell, H., Kearney, Mo.
Tadlock, H. L., Holt, Mo.
Wallace, W. S., Excelsior Springs, Mo.
Ward, T. J., Birmingham, Mo.

CLINTON COUNTY.

Colley, E. A., Plattsburg, Mo.
Franklin, J. A., Cameron, Mo.
Kay, John, Perrin, Mo.
Loughfield, Jesse, Turney, Mo.
Peters M. L., Cameron, Mo.
Rea, Robt. W., Plattsburg, Mo.
Rush, G. B., Lathrop, Mo.
Steckman, P. M., Plattsburg, Mo.
Sturgis, John, Perrin, Mo.

COLE COUNTY.

Bedford, S. V., Jefferson City, Mo.
Clark, W. A., Jefferson City, Mo.
Enloe, C. F., Jefferson City, Mo.
Ettmueller, G., Jefferson City, Mo.
Hill, J. A., Jefferson City, Mo.
Hough, C. P., Jefferson City, Mo.
Leach, I. N., Jefferson City, Mo.
Martin, J. B., Jefferson City, Mo.
Myers, H. C., Jefferson City, Mo.
Norwood, W. W., Jefferson City, Mo.
Sneed, C. M., Jefferson City, Mo.
Son, E. R., Jefferson City, Mo.
Thorpe, J. L., Jefferson City, Mo.

COOPER COUNTY.

Barnes, H. T., Pilot Grove, Mo.
Barnes, W. S., Pilot Grove, Mo.
Cochran, O. W., Gooch Mill, Mo.
Elliott, W. H., Bunceton, Mo.
Evans, R. L., Boonville, Mo.

Hurt, P. L., Boonville, Mo.
Lionberger, J. R., Boonville, Mo.
McDonald, H. A. Pisgah, Mo.
Meredith, A. L., Wooldridge, Mo.
Monroe, A. E., Otterville, Mo.
Nelson, A. W., Bunceton, Mo.
Pendleton, T. O., Pilot Grove, Mo.
Smiley, F. R., Boonville, Mo.
Smith, A. J., Boonville, Mo.
Van Ravenswaay, C. H., Boonville, Mo.

CRAWFORD COUNTY.

No Report Received.

DAVIESS COUNTY.

Brosius, W. L., Gallatin, Mo.
Cox, J. L., Winston, Mo.
Henry, Anna M., Pattonsburg, Mo.
Jarrett, S. S., Pattonsburg, Mo.
Parker, J. Z., Pattonsburg, Mo.
Songer, H. E., Jamesport, Mo.
Wetzel, N. M., Jameson, Mo.

DE KALB COUNTY.

Clark, Wm. J., Maysville, Mo.
Elliott, J. R., Clarksdale, Mo.
Evans, R. A., Amity, Mo.
Farmer, A. O., Union Star, Mo.
Gale, W. S., Osborne, Mo.
Kimberlin, J. T., Clarksdale, Mo.
Lee, L. E., Weatherby, Mo.
Perkins, O. L., Union Star, Mo.
Quinn, J. C., Clarksdale, Mo.
Reynolds, E. M., Union Star, Mo.
Richey, L. A., Fairport, Mo.
Saunders, L. E., Stewartsville, Mo.
Small, J. F., Stewartsville, Mo.
Strump, E. R., Weatherby, Mo.
Yoster, H. P., Maysville, Mo.

DENT COUNTY.

Arthur, S. F., Lecoma, Mo.
Conway, R. H., Mounce, Mo.
Calhoun, D. S., Sligo, Mo.
Craig, L. B., Salem, Mo.
Cummings, W. P., Salem, Mo.
Duncan, E. A., Salem, Mo.
Gordon, J. B., Gila, Mo.
Hunt, T. G., Lenox, Mo.
Lenar, W. M., Lake Spring, Mo.
McMurtrey, A. F., Salem, Mo.
Rudd, W. E., Salem, Mo.
Welch, J. C., Salem, Mo.

DUNKLIN COUNTY.

Baldwin, Paul, Bennett, Mo.
Bond, V. H., Cotton Plant, Mo.
Egbert, T. H., Kennett, Mo.
Finney, W. B., Kennett, Mo.
Harrison, A. S., Kennett, Mo.
Johnson, G. L., Kennett, Mo.
Kelley, N. F., Kennett, Mo.
Mobley, A. B., Kennett, Mo.
Rigdon, T. J., Kennett, Mo.

FRANKLIN COUNTY.

Booth H. A., Pacific, Mo.
Briegleb, C. F., St. Clair, Mo.
Brown, A. C., Moselle, Mo.
Dunnigan, J. P., Sullivan, Mo.
Eimbeck, Wm. F., New Haven, Mo.
Hempker, W. H., Catawissa, Mo.
Hume, E. L., Bourbon, Mo.
Kitchell, W. E., St. Clair Mo.
Lane, A., Sullivan, Mo.
Mankopf, B. E., New Haven, Mo.
May, H. A., Washington, Mo.
McMay, A. L., Pacific, Mo.
Isbell, J., Washington, Mo.
North, W. R., Labadie, Mo.
Poppenhusen, H. A., Washington, Mo.
Rusk, E. McD., Villa Ridge, Mo.
Rusk, J. A., Gray Summit, Mo.
Schudde, O. N., Sullivan, Mo.
Smith, Augusta, Pacific, Mo.
Snow, A. E., Union, Mo.

GASCONADE-MARIES-OSAGE.

Aufderheid, F., Farmersville, Mo.
Burgess, J. W., Farmersville, Mo.
Engelbrecht, John, Farmersville, Mo.
Ferrell, J. J., Farmersville, Mo.
Ferrell, W., Farmersville, Mo.
Neiweg, J. W., Farmersville, Mo.
Radamacker, J. J., Farmersville, Mo.
Seba, E. W., Farmersville, Mo.
Seba, J. D., Bland, Mo.
Spurgeon, M. E., Farmersville, Mo.
Terrill, S. J., Farmersville, Mo.

GENTRY COUNTY.

Barger, J. N., Darlington, Mo.
Brooks, W. N., Stanberry, Mo.
Crochett, J. F., Stanberry, Mo.
Conrad, J. W., Albany, Mo.
Landis, H. B., King City, Mo.
Lindley, E. R., Stanberry, Mo.
Martin, W. S., Albany, Mo.
Patton, C. O., Stanberry, Mo.
Patton, H. J., McFall, Mo.
Smith, G. W., Albany, Mo.
Whitely, G. W., Albany, Mo.

GREENE COUNTY.

Armstrong, A., Springfield, Mo.
Barnes, G. W., Springfield, Mo.
Bartlett, J. R., Springfield, Mo.
Beers, E. G., Springfield, Mo.
Boyd, J. R., Springfield, Mo.
Camp, W. A., Springfield, Mo.
Carter, O. N., Springfield, Mo.
Clark, J. W., Springfield, Mo.
Coffelt, T. A., Springfield, Mo.
Cowan, R. M., Springfield, Mo.
Cox, Lee, Springfield, Mo.
Crane, T. V. B., Springfield, Mo.
Elkins, B. C., Springfield, Mo.
Evans, E. C., Springfield, Mo.
Evans, E. L., Springfield, Mo.
Farnsworth, D. B., Springfield, Mo.
Fortner, B. F., Springfield, Mo.
Fulbright, J. H., Springfield, Mo.
Fulton, C. E., Springfield, Mo.
Fuson, F. B., Springfield, Mo.
Hill, H. S., Springfield, Mo.
James, W. C., Springfield, Mo.
Keer, U. F., Springfield, Mo.
Knabb, E., Springfield, Mo.
McClure, L. E., Springfield, Mo.
Matthews, J. C., Springfield, Mo.
Mayfield, M. H., Springfield, Mo.
Nixon, J. H., Springfield, Mo.
Oldham, J. D., Springfield, Mo.
Ormsbee, J. L., Springfield, Mo.
Patterson, W. P., Springfield, Mo.
Peak, O. L., Springfield, Mo.
Perry, J. K., Springfield, Mo.
Purselley, W. L., Springfield, Mo.
Ralston, J. P., Springfield, Mo.
Rienhoff, Wm., Springfield, Mo.
Sherman, D. U., Springfield, Mo.
Smith, W. M., Springfield, Mo.
Tefft, J. E., Springfield, Mo.
Terry, N. F., Springfield, Mo.
Tickle, S. W., Springfield, Mo.
Williams, J. W., Springfield, Mo.
Williams, N. C., Springfield, Mo.
Wilber, A. F., Springfield, Mo.
Woody, C. E., Springfield, Mo.

GRUNDY COUNTY.

Coon, D. W., Trenton, Mo.
Davenport, R. G., Trenton, Mo.
Elder, A. L., Trenton, Mo.
Fulkerson, W. D., Trenton, Mo.
Sutton, Bertha, Trenton, Mo.
Webster, C. L., Trenton, Mo.
Wright, J. B., Trenton, Mo.

HARRISON COUNTY.

Broyles, F. H., Bethany, Mo.
Bryson, E. H., Bethany, Mo.
Chipp, J. K., New Hampton, Mo.
Dunkerson, E., Hatfield, Mo.

Eades, M. H., New Hampton, Mo.
Ferguson, R. E., Gilman City, Mo.
Gwinn, G. E., Bethany, Mo.
Mitchell, A. C., Bethany, Mo.
Morroway, J. H., Ridgeway, Mo.
Reynolds, A. C., Martinsville, Mo.
Robertson, C. H., Eagleville, Mo.
Shibley, John, Gilman City, Mo.
Stewart, B. S., Bethany, Mo.
Swint, Wm., Gilman City, Mo.
Vandivere, A. H., Bethany, Mo.
Walker, Jackson, Bethany, Mo.
Wiley, W. H., Ridgeway, Mo.
Williams, A. W., Ridgeway, Mo.

HENRY COUNTY.

Barr, B. B., Clinton, Mo.
Beaty, J. G., Huntingdale, Mo.
Benway, Wm. H., Deepwater, Mo.
Blackmore, F. A., Windsor, Mo.
Bradley, W. P., Clinton, Mo.
Britts, J. H., Clinton, Mo.
Derwent, A. E., Clinton, Mo.
Douglass, F. M., Clinton, Mo.
Gibbins, Wm. H., Clinton, Mo.
Gray, A. A., Calhoun, Mo.
Haire, R. D., Clinton, Mo.
Hampton, J. R., Clinton Ford, R. F. D.
Mennees, G. W., Clinton, Mo.
Head, G. W., Windsor, Mo.
Miner, J. M., Montrose, Mo.
Peilor, Edwin C., Coal, Mo.
Poague, S. A., Clinton, Mo.
Russell, J. J., Deepwater, Mo.
Shankland, W. M., Clinton, Mo.
Wallis, J. R., Clinton, Mo.

HOLT COUNTY.

Bullock, F. E., Forest City, Mo.
Chandler, J. F., Forest City, Mo.
Davis, J. M., Craig, Mo.
Davis, T. O., Maitland, Mo.
Evans, C. L., Oregon, Mo.
Gray, M. S., Craig, Mo.
Kaltenbach, E., Craig, Mo.
Miller, E. E., Mound City, Mo.
Miller, E. M., Mound City, Mo.
Miller, J. W., Mound City, Mo.
Proud, W. C., Oregon, Mo.
Quigley, B. T., Mound City, Mo.
Simmons, B. B., Oregon, Mo.
Tracy, J. M., Mound City, Mo.
Tracy, J. C., Mound City, Mo.
Williams, Ira, Maitland, Mo.
Wood, W. S., Oregon, Mo.

HOWARD COUNTY.

Bonham, Q. V., New Franklin, Mo.
Burgwin, A. B., Fayette, Mo.
Champion, J. R., Hilldale, Mo.
Drake, C. F., Boonesboro, Mo.
Givens, H. K., Fayette, Mo.
Halsey, F. J., Franklin, Mo.
Hume, J. G., Armstrong, Mo.
Jordan, J. E., New Franklin, Mo.
Lee, C. H., Fayette, Mo.
Lewis, C. O., Fayette, Mo.
McLee, C. P., Fayette, Mo.
Myers, C. P., Fayette, Mo.
Prichett, W. M., Glasgow, Mo.
Richards, F. C., Fayette, Mo.
Smith, Paul C., Fayette, Mo.
Smith, N. E., Fayette, Mo.
Thompson, W. G., Armstrong, Mo.
Watts, C. W., Fayette, Mo.
White, J. A., New Franklin, Mo.
Wood, J. E., Harrisburg, Mo.
Wright, U. S., Fayette, Mo.

HOWELL COUNTY.

Bingham, J. N., Portersville, Mo.
Davis, J. C. B., Willow Springs, Mo.
Dixon, J. C. B., West Plains, Mo.
Elben, J. L., Alton, Mo.
Johnson, J. McB., West Plains, Mo.
Nichols, D. J., West Plains, Mo.
Piles, J. C., Alton, Mo.
Reiley, J. F., West Plains, Mo.
Rowe, H. J., Willow Springs, Mo.
Schuttee, H. C., West Plains, Mo.
Spears, R., S., West Plains, Mo.
Thompson, H. A., Lanton, Mo.
Thornburg, A. H., West Plains, Mo.

IRON COUNTY.

No Report Received.

JACKSON COUNTY.

(All addresses are Kansas City unless otherwise stated).

Adams, Noah, 317 Rialto Bldg.
Allbritain, J. W., 24th & Holly.
Anderson, H. C., 716 Shukert Bldg.
Anderson, E., 915 W. 17th St.
Armour, Wallace A., 3505 E. Twelfth St.
Atkins, Calvin, Independence, Mo.
Beattie, Thos. J., 603 Commercial Bldg.
Beedle, G. A., 314 Altman Bldg.
Beil, J. W., 805 McGee St.
Binnie, J. F., Twelfth & Wyandotte.
Blakesley, Theo, 100 Rialto Bldg.
Block, J., 502 Commerce Bldg.
Boswell, A. C., 2301 Summit St.
Bowman, Dora E., 327 Rialto Bldg.
Bowman, J. W., 402 Hall Bldg.
Brainard, B. F., Martin City, Mo.
Brewster, R. B., 422 Argyle Bldg.
Brown, Chas. A., 311 Commerce Bldg.
Bruehl, J., 500 New Ridge Bldg.
Brunig, F. H., 3137 Main St.
Burkhart, E. A., 2309 Summitt St.
Burroughs, A., 2317 College Ave.
Burnet, S. G., 425 Rialto Bldg.
Burrill, C. W., 623 Shukert Bldg.
Callaghan, R., Cambridge Ave.
Campbell, W. L., Fifteenth & Jackson.
Carbaugh, Eugene, 430 Rialto Bldg.
Carl, S. T., 350 Ridge Bldg.
Carver, H. N., 2805 E. 12th St.
Castelaw, R. E., 13 Woodworth Ave.
Cathcart, C. P., 419 Deardorff Bldg.
Chambers, J. Q., 709 Shukert Bldg.
Chambliss, E. L., 523 Rialto Bldg.
Child, Scott P., 705 Shukert Bldg.
Clausen, J. J., 2311 Summitt Bldg.
Coffey, W. H., 500 Bellefontaine.
Cook, F. L., Blue Springs, Mo.
Cordier, A. H., 310 Rialto Bldg.
Cross, R. O., 317 Rialto Bldg.
Cross, W. M., 1005 Campbell St.
Crowder, W. H., 4647 Independence.
Curry, E. R., 304 Deardorff Bldg.
Curdy, R. J., 614 Commerce Bldg.
Lailey, F. W., 327 Altman Bldg.
Dannaker, C. A., 537 Woodland Ave.
Davis, A. W., 3303 Woodland Ave.
Davis, G. W., 407 Century Bldg.
Davis, S. J. T., 304 Deardorff Bldg.
Dod, Frederick L., 4646 Troost Bldg.
Donaldson, G. H., 200 Westport Ave.
Donaldson, J. E., 200 Westport Ave.
Dove, O. H., 413 Rialto Bldg.
Drake, N. A., 1001 Harrison St.
Edmonson, M. M., 2440 Brooklyn Ave.
Eldredge, J. S., 1021 Grand Ave.
Evans, F. H., Fifth & Troost Ave.
Eubank, A. E., 3021 South West Bl.
Faires, O. P., 1300 E. 8th St.
Fields, Tom, Eighteenth & Prospect Ave.
Field, W. S., 720 Shukert Bldg.
Foster, Hal, 402 Altman Bldg.
Frankenburger, J. M., 534 Rialto Bldg.
Freyman, A. A., 1201 Independence.
Freyman, J., 1201 Independence.
Frick, Wm., 301 Rialto Bldg.
Frick, W. J., 311 Commerce Bldg.
Froehling, F. W., 920 Holmes St.
Fryer, B. E., 520 E. Ninth St.
Fulton, A. L., 430 Deardorff Bldg.
Fulton, C. M., 534 Altman Bldg.
Gaines, J. W., 406 Rialto Bldg.
Goldman, Max, 309 Century Bldg.
Gosney, C. W., 718 Shukert Bldg.
Green, J. W., Independence, Mo.
Griffith, J. D., 522 Rialto Bldg.
Guffey, Don Carlos, 605 Bryant Bldg.
Hall, C. L., Bryant Bldg.
Hall, D. W., Bryant Bldg.
Hall, F. J., 288 Olive St.

Halley, George, Ridge Bldg.
Hamel, G. F., 706 West Tenth St.
Hamilton, H. D., 1806 E. Thirty-first St.
Hanawalt, H. O., 1214 Main St.
Hanna, M. A., 2711 Brooklyn St.
Hardin, C. B., Rialto Bldg.
Harrison, A., Lees Summit, Mo.
Harrelson, N. O., Rialto Bldg.
Harrington, J. L., 1021 Grand Ave.
Harrison, E. Lee., 307 Husted Bldg.
Hashinger, G. H., Rialto Bldg.
Hays, H. C., 310 Century Bldg.
Henderson, J. P., 426 Argyle Bldg.
Henry, F. J., 2203 Brooklyn Ave.
Hertzler, A. E., 508 Altman Bldg.
Hetherington, E. M., Altman Bldg.
Hickerson, J. C., Independence Ave
Hill, Howard, Rialto Bldg
Holbrook, R. W., 224 Bryant Bldg.
Horigan, J. A., 3100 Main St.
Howard, J. W., 805 McGee St.
Hoxie, G. H., 317 Argyle Bldg.
Hyde, B. C., 404 Bryant Bldg.
Irwin, C. B., 426 Ridge Bldg.
Iuen, F. J., 1334 Grand Ave.
Iuen, W. C., 1334 Grand Ave.
Jacobs, Ben, Altman Bldg.
Jackson, J. N. Rialto Bldg.
James, S. C., Rialto Bldg.
Jennett, H. N., 4603 E. Ninth St.
Johnson, Chas. R., General Hosp. Bldg.
Johnstone, P. A., Shukert Bldg.
Kanoky, J. P., 912 Walnut St.
Kelly, E. H., 2018 Prospect St.
Kepner, J. W., 720 Shukert Bldg.
King, W. E., 403 Commerce Bldg.
Kistler, J. R., 601 S. W. Blvd.
Kimberlin, J. W., 532 Altman Bldg.
Knox, A. G., 322 Altman Bldg.
Kreeger, Geo. C., Lone Jack, Mo.
Krimminger, C. E., Independence, Mo.
Kuhn, W. F., Farmington, Mo.
Lahmer, Ira B., 1336 Broadway.
Lake, N. E., Fourteenth & Summitt.
Lane, H. H., 800 S. W. Blvd.
Langsdale, J. M., Altman Bldg.
Laning, J. R., 623 Shukert Bldg.
Lapp; J. G., 203 Askew Bldg,
Lauranzana, Louis, Fifth & Cherry St.
Leverich, Leslie, Twelfth & Brooklyn Ave.
Leonard, H. O., 521 Shukert Bldg.
Leonard, W. H., 601 S. W. Blvd.
Lester, Chas. H., 601 Bryant Bldg.
Lewis, Ned O., Fourteenth & Grand Ave.
Lewis, J. K., 1212Wyandotte Ave.
Lieberman, B. A., 1107 McGee Ave.
Logan, J. E., 1229 Wyandotte Ave.
Lowrey, W. J., 402 Hall Bldg.
Lusher, L. W., Twelfth & Grand Ave.
Lyle, H. M., 523 Altman Bldg.
Mallett, Eugene P., Twelfth & Wyandotte.
McAlester, A. W., 429 Argyle Bldg.
McArthur, A. W., 517 Shukert Bldg.
McBride, W. L., 503 Bryant Bldg.
McCall, H. B., 707 Shukert Bldg
McCandless, O. H., 305 Altman Bldg.
McCrea, Maggie L., 526 Ridge Bldg.
McDonald, Chet, Rialto Bldg.
McDonald, P. L., 527 Rialto Bldg.
McKee, J. W., Rialto Bldg.
McKillip, O. L., 532 Altman Bldg.
McVey, Newton, Rialto Bldg.
Manko, E., Twelfth & Central.
Mann, A. W., Oak Grove, Mo..
Martin, H. L., 601 Twelfth St.
Martin, J. C., 3026 W. 23rd St.
Merriman, C. S., 2511 Forest Ave.
Middleton, James, 412 N. Mongall Ave.
Miller, Abram, Rialto Bldg.
Miller, Hugh, 1021 Grand Ave.
Montgomery, W. E., Rialto Bldg.
Morrow, C. J., Bryant Bldg.
Morrow, W. F., Altman Bldg.
Mott, J. S, Rialto Bldg.
Murphy, F. E., Deardorff Bldg.
Neff, F. C., Altman Bldg.
Newhouse, Stanley, 452 Ridge Bldg.
Norberg, G. B., 526 Altman Bldg.
O'Connor, C., 815 McGee St.
O'Donnell, A., 327 Altman Bldg.
O'Flaherty, A. E., 2807 E. 33rd St.
Owens, M. J., 603 S. W. Blvd.
Pearse, H. E., Rialto Bldg.
Parker, O. H., Twelfth & Central.
Perkins, J. W., Altman Bldg.
Pettijohn, N. J., 1310 Tracy Ave.
Phillips, E. T., 1019 Broadway.
Porter, A. L., Rialto Bldg.
Porter, D. R., Tenth & Washington Ave.
Punton, John, Altman Bldg.
Ralston, J. H., 1800 W. Twenty-ninth St.
Rathbone, F. W., Rialto Bldg.
Ragsdale, T. J., Lees Summitt, Mo.
Reed, W. M., Rialto Bldg.
Reynolds, W. T., 517 Shukert Bldg.
Rice, Wm., 402 Hall Bldg.
Richardson, K. B., Ridge Bldg.
Ridge, I. M., Ridge Bldg.
Ritter, C. A., Altman Bldg.
Roberts, C. F., 720 Shukert Bldg.
Roberts, C. S., Lees Summitt, Mo.
Robinson, W. G., 415 Argyle Bldg.
Robinson, E. F., Bryant Bldg.
Robinson, J. L., Altman Bldg.
Rogers, J. C., Rialto Bldg.
Rosenwald, Leon, Rialto Bldg.
Russell, E. L., 805 Altman Bldg.
Sams, W. M., 806 Independence.
Sanders, F. L., 517 Shukert Bldg.
Sanders, St. Elmo, Rialto Bldg.
Sawyer, J. F., Fifth & Ledie Ave.
Schauffler, E. W., Deardorff Bldg.
Scott, A. J., Ridge Bldg.
Sheldon, J. G., 405 Altman Bldg.
Sherer, J. W., 1208 Wyandotte Ave.
Skinner, E. H., 207 Commerce Bldg.
Sloan, R. T., Rialto Bldg.
Smith, A. E., University Bldg.
Smith, R. M., 203 E. Twelfth St.
Stephens, N. A., 813 E. Thirty-first St.
St. Clair, R. L., 115 Hardestry Ave.
Stevens, W. W., Greenwood, Mo.
Stewart, E. L., 521 Shukert Bldg.
Streett, St. Clair, 123 W. Twelfth St.
Strother, J. S., 311 Commerce Bldg.
Swaney, Loren, Hickman Mills, Mo.
Swaney, A. C., Lees Summitt, Mo.
Switzer, Clyde, Cor. 12th & Troost.
Talbott, Ambrose, Rialto Bldg.
Taylor, L. G., 720 Woodland Ave.
Tesson, N. A. G., 332 Shukert Bldg.
Thomas, A. W., Springfield, Mo.
Thompson, James, Rialto Bldg.
Thompson, J. H., Deardorff Bldg.
Thornton, T. R., Lees Summitt, Mo.
Thrailkill, E. H., Rialto Bldg.
Tiffany, F. B., 805 McGee St.
Tieman, T. G., 603 Sw. Boul.
Trueman, H. G., 702 Commerce Bldg.
Twyman, G. T., Independence, Mo.
Van Eman, F. T., 415 Argyle Bldg.
Voegelin, S., 436 New Ridge Bldg.
Wall, A. H., 3839 Independence.
Watson, B. F., Rialto Bldg.
Weyer, I. S., 503 Bryant Bldg.
Weiss, F. H., 415 Deardorff Bldg.
Wheeler, B. H., 422 Deardorff Bldg.
Wheeler, W. S., 205 E. 12th St.
Wherritt, H. P., Independence, Mo.
Willits, W. C., 311 Argyle Bldg.
Wilson, C. E., 415 Keith & Perry Bldg.
Wilson, Dora G., 1008 Locust St.
Wilson, John, 720 Shukert Bldg.
Wolf, I. J., 408 Argyle Bldg.
Wood, N. P., Independence, Mo.
Woolley, Paul V., 309 Argyle, Bldg.
Wyatt, T. E., 3215 Olive St.
Zwart, B. H., 1019 Prospect St.

JASPER COUNTY.

Anderson, F. L., Joplin, Mo.
Barnett, A. F., Joplin, Mo.
Balsley, M. T., Joplin, Mo.
Baird, E. H., Webb City, Mo.
Blackwell, Z. T., Joplin, Mo.
Bragdon, G. H., Reeds, Mo.
Clark, J. W., Carterville, Mo.
Cook, L. C., Webb City, Mo.
Donanue, P., Joplin, Mo.
Dumbauld, B. A., Carterville, Mo.

Freeman, A. B., Joplin, Mo.
Grantham, S. A., Joplin, Mo.
Hall, Elizabeth, Carthage, Mo.
James, R. M., Joplin, Mo.
Kelso, R. S., Joplin, Mo.
Kincheloe, M. B., Joplin, Mo.
Korn, A. L., Carthage, Mo.
Lanyon, W. H., Joplin, Mo.
Mailoy, W. H., Joplin, Mo.
Mathews, L. I., Joplin, Mo.
Mays, G. I., Joplin, Mo.
McClure, G. W., Carterville, Mo.
McMichael, A. O., Joplin, Mo.
Miller, G. W., Joplin, Mo.
Miller, S. H., Joplin, Mo.
Neff, R. L., Joplin, Mo.
Pifer, J. D., Joplin, Mo.
Powers, Everett, Carthage, Mo.
Rohan, F. E., Joplin, Mo.
Shelton, M. C., Joplin, Mo.
Snyder, A. R., Joplin, Mo.
Spriggs, M. L., Joplin, Mo.
Steele, W. E., Carthage, Mo.
Taylor, H. H., Joplin, Mo.
Winchester, J. M., Joplin, Mo.
Woolfe, B. F., Carthage, Mo., R.F.D.No.1.

JEFFERSON COUNTY.

Donnell, J. T., Festus, Mo.
Donnell, R. E., De Soto, Mo.
Farrar, W. H., De Soto, Mo.
Hamel, A. H., De Soto, Mo.
Harris, C. G., Festus, Mo.
Hauck, S. W., Kimmswick, Mo.
Kirk, J. F. W., Kimmswick, Mo.
MacNutt, I. N., Pevely, Mo.
Rutledge, J. C., Festus, Mo.
Tidwell, G. W., De Soto, Mo.

JOHNSON COUNTY.

Aber, W. H., Montserrat, Mo.
Adcock, D. C., Warrensburg, Mo.
Adcock, J. A. B., Warrensburg, Mo.
Anderson, J. L., Warrensburg, Mo.
Anderson, J. T., Warrensburg, Mo., R. F. D.
Bozarth, John R., Centerview, Mo.
Bradley, T. L., Warrensburg, Mo.
Case, Z., Warrensburg, Mo.
Gilbert, E. H., Warrensburg, Mo.
Graves, E. A., Kingsville, Mo.
Hall, O. B., Warrensburg, Mo.
Howard, T. S., Chilhowee, Mo.
Johnson, W. E., Warrensburg, Mo.
Martin, W. L. Chilhowee, Mo.
Murray, L. F., Holden, Mo.
Ozias, C. O., Warrensburg, Mo.
Pare, E. G., Lieton, Mo.
Porter, J. E., Knobnoster, Mo.
Raines, N. J., Knobnoster, Mo.
Rice, J. M., Columbia, Mo.
Schofield, L. J., Warrensburg, Mo.
Schooley, R. C., Robbins, Mo.
Shy, M. E., Knobnoster, Mo.
Thompson, J. T., Holden, Mo.
Tilton, A. L., Truxton, Arizona.
Zoll, F. C., Warrensburg, Mo.

KNOX COUNTY.

Brown, L. S., Edina, Mo.
Haden, J. W., Pleona, Mo.
Humphrey, B. F., Hurdland, Mo.
Humphrey, H., Locust Hill, Mo.
Jurgens, H. J., Edina, Mo.
McReynolds, U. R., Knox City, Mo.
Morris, W. J., Edina, Mo.
Pierce, Don, Newark, Mo.
Wilsey, A. R., Hurdland, Mo.

LACLEDE COUNTY.

Barker, J. C., Russ, Mo.
Billings, J. M., Lebanon, Mo.
Herbert, T. B., Lebanon, Mo.
Jacobs, J. C., Conway, Mo.
Lindsey, J. W., Orla, Mo.
Lockwood, W. A., Conway, Mo.
McComb, Al., Lebanon, Mo.
McComb, Jas., Lebanon, Mo.
Pinckard, J. A., Lebanon, Mo.
Standard, D. E., Lebanon, Mo.

LAFAYETTE COUNTY.

Barclay, R. D., Odessa, Mo.
Braecklein, W. A., Higginsville, Mo.
Carter, R. C., Higginsville, Mo.
Carthrae, Lewis, Cordee, Mo.
Cope, J. Q., Lexington, Mo.
Fulkerson, J. J., Lexington, Mo.
Gaines, E. F., Bates City, Mo.
Harwood, W. G., Dover, Mo.
Lieser, F. D., Concordia, Mo.
Lissack, H. M., Lexington, Mo.
McLennan, Higginsville, Mo.
Mann, J. A., Wellington, Mo.
Mann, F. W., Wellington, Mo.
McGinnis, F., Higginsville, Mo.
Nickell, C. A., Mayview, Mo.
Ott, W. C., Higginsville, Mo.
Payne, N. B., Lexington, Mo.
Parkhurst, C. L., Odessa, Mo.
Perrie, J., Mayview, Mo.
Roberts, M. G., Lexington, Mo.
Ryland, C. T., Lexington, Mo.
Schreiman, F., Concordia, Mo.
Schneider, J. A., Concordia, Mo.
Tucker, J. E., Lexington, Mo.
Watts, R. D., Napoleon, Mo.
Webb, W. C., Higginsville, Mo.
Williams, H., Odessa, Mo.
Williams, G., Odessa, Mo.

LAWRENCE-STONE COUNTY.

Andrew, J. P., Marionville, Mo.
Baird, Jesse P., Marionville, Mo.
Clark, H. Ross, Pierce City, Mo.
Craven, J. H., Marionville, Mo.
Doggett, C. R., Crane, Mo.
Freeland, P. D., Pierce City, Mo.
Goodrich, E. E., Crane, Mo.
Gum, L. J., Stinson, Mo.
Harding, D. E., Aurora, Mo.
Harris, J. A., Mt. Vernon, Mo.
Hoffman, D. M., Crane, Mo.
McCall, T. D. S., Marionville, Mo.
Madry, A. H., Aurora, Mo.
Melton, J. A., Aurora, Mo.
Miller, Thos. D., Aurora, Mo.
Moore, C. A., Aurora, Mo.
Rice, Marion, Stotts City, Mo.
Rodman, W. W., Pierce City, Mo.
Shumate, L. St. Clair, Reed Springs, Mo.
Smart, W. R., Crane, Mo.
Stevenson, F. S., Aurora, Mo.
Wade, E. E., Crane, Mo.
Winter, J. M., Mt. Vernon, Mo.

LEWIS COUNTY.

Brown, J. C., Lewiston, Mo.
Cole, Paul F., Steffenville, Mo.
Dunlap, H. E., Canton, Mo.
Ellery, William, La Grange, Mo.
Ellery, Wm. L., La Grange, Mo.
Frame, C. N., Ewing, Mo.
Frame, J. P., Ewing, Mo.
Ford, John M., Williamstown, Mo.
Knight, G. P., Benjamin, Mo.
McCutchan, G. L., Canton, Mo.
McGlasson, T. F., Lewistown, Mo.
McKim, H. W., LaBelle, Mo.
Marchland, J. B., Monticello, Mo.
Musgrove, J. K., LaBelle, Mo.
Owens, N. O., La Grange, Mo.
Perry, A. A., Williamstown, Mo.
Raines, J. D., Maywood, Mo.
Rebo, W. A., Canton, Mo.
Schofield, R. B., Lewistown, Mo.
Shanks, C. O., Canton, Mo.
Simpson, W. B., LaBelle, Mo.
Sullivan, G. M., Lewistown, Mo.
Thomin, G. F., Williamstown, Mo.
Tompkins, Junius, Canton, Mo.
Wilson, R. E., LaBelle, Mo.
Wiseman, T. P., Monticello, Mo.

LINCOLN COUNTY.

Bankhead, C. L., Paynesville, Mo.
Bailey, S. M., Elsberry, Mo.
Diggs, J., Hawkpoint, Mo.
Hemphill, W. A., Elsberry, Mo.

Kieling, F. U., Elsberry, Mo.
Knox, J. A., Whiteside, Mo.
McKay, S. R., Troy, Mo.
Powell, C. E., Elsberry, Mo.
Prewitt, G. E., Hawkpoint, Mo.
Smith, W. P., Troy, Mo.
Stuckert, O., Whiteside, Mo.

LINN COUNTY.

Buck, U. G., Rothville, Mo.
Burke, F. W., Laclede, Mo.
Burke, J. L., Laclede, Mo.
Carlyl, L. P., Brookfield, Mo.
Cochran, F. B., Brookfield, Mo.
Dryden, U. G., Purden, Mo
Ellis, W. W., Marceline, Mo.
Epperson, H. E., Browning, Mo.
Eure, J. B., Brookfield, Mo.
Fore, T. P., Brookfield, Mo.
Frazer, Leland, Marceline, Mo.
Howard, D. F., Brookfield, Mo.
Jenkins, C. E., Brookfield, Mo.
Johnson, H. C., Meadville, Mo.
Lane, J. W., Linneus, Mo.
Mairs, J. A., Browning, Mo.
Mason, J. W., Brookfield, Mo.
Morris, Robt. H., Linneus, Mo.
Musgrove, W. H., Eversonville, Mo.
Oven, T. P., Brookfield, Mo.
Patrick, P. L., Bucklin, Mo.
Polson, J. T., Laclede, Mo.
Pratt, H. H., Brookfield, Mo.
Putnam, B. B., Marceline, Mo.
Putnam, Ola, Marceline, Mo.
Riding, O. H., Meadville, Mo.
Scott, W. B., Bucklin, Mo.
Stanley, X. T., Laclede, Mo.
Standly, Kathryn V., Brookfield, Mo.
Standly, E. D., Linneus, Mo.
Stratton, C. D., Rothville, Mo.
Thompson, J. M., Meadville, Mo.
Trippier, Bert, Browning, Mo.
Whaley, R. W., Browning, Mo.

LIVINGSTON COUNTY.

Alexander, G. W., Chula, Mo.
Batdorff, F. P., Farmersville, Mo.
Barney, R., Chillicothe, Mo.
Chaffin, R. E., Belton, Mo.
Girdner, Wm. M., Chillicothe, Mo.
Grace, H. M., Chillicothe, Mo.
Houf, W., Farmersville, Mo.
Ogan, E. F., Chula, Mo.
Patton, C. W., Samprel, Mo.
Shelton, J. C., Chillicothe, Mo.
Simpson, A. J., Chillicothe, Mo.
Simpson, W. R., Chillicothe, Mo.
Stevens, B. N., Chillicothe, Mo.
Tracy, L. E., Chillicothe, Mo.
White, W. L., Springhill, Mo.
Wooden, I. M., Dawn, Mo.

MACON COUNTY.

Bradley, W. E., Ethel, Mo.
Campbell, J. F., Laplata, Mo.
Mason, L. O., Bevier, Mo.
Pipkin, W. D., Excello, Mo.
Reagan, C. W., Macon, Mo.
Rowland, W. P., Bevier, Mo.
Smith, E. S., Macon, Mo.
Watson, T. S., Bevier, Mo.
White, M. S., Roanoke, Mo.

MADISON COUNTY.

Anthony C. A., Fredericktown, Mo.
Barron, W. H., Mine La Motte, Mo.
Carr, G. M., Mine La Motte, Mo.
Cozzen, E. P., Fredericktown, Mo.
Davis, C. U. Fredericktown, Mo.
Dines, G. L., Mine La Motte, Mo.
Gale, F. W., Marquand, Mo.
Greenwood, G. W., Fredericktown, Mo.
Haley, O., Fredericktown, Mo.
Newberry, F. R., Fredericktown, Mo.
Slaughter, S. C., Fredericktown, Mo.
Smith, J. K., Fredericktown, Mo.

MARION COUNTY.

Banks, H. L., Hannibal, Mo.
Baskett, J. N., Hannibal, Mo.
Bourn, J. J., Hannibal, Mo.
Bounds, E. H., Hannibal, Mo.
Bush, F. W., Hannibal, Mo., R. F. D.
Chilton, J. C., Hannibal, Mo.
Chowning, Thos., Hannibal, Mo.
Detweiler, A. J., Hannibal, Mo
Farrell, J. J., Hannibal, Mo.
Goodier, Robt. H., Hannibal, Mo.
Guss, W. C., Hannibal, Mo.
Hays, W. H., Hannibal, Mo.
Hornback, E. T., Hannibal, Mo.
Howell, J. S., Hannibal, Mo.
Primm, J. N., Hannibal, Mo.
Reid, J., Hannibal, Mo.
Schmidt, R., Hannibal, Mo.
Shanks, A. L., Hannibal, Mo.
Smith, S. G., Hannibal, Mo.
Smith, U. S., Hannibal, Mo.
Vandiver, C. E., Hannibal, Mo.
Waldo, E. E., Hannibal, Mo.

McDONALD COUNTY.
No Report Received.

MERCER COUNTY.

Bristow, G. M., Princeton, Mo.
Buren, C. R., Princeton, Mo.
Ewing, Ed. W., Spickards, Mo.
Nally, H., Cainsville, Mo.
Oyler, H. W. Mill Grove, Mo.
Perry, J. M., Princeton, Mo.
Pickett, C. P., Mercer, Mo.
Powell, B. S., Mercer, Mo.
Stacey, E. W., Princeton, Mo.

MILLER COUNTY.

Allee, W. L., Eldon, Mo.
Bennage, J. L., Olean, Mo.
Van Gremp, W. A., Iberia, Mo.

MISSISSIPPI COUNTY.

Chapman, A. W., Charleston, Mo.
Finley, I. L., Anniston, Mo.
Lynch, J. W., Charleston, Mo.
Reid, H. L., Charleston, Mo.
Vernon, F. S., Farmington, Mo.
Wallace, G. R., Bertrand, Mo.
Willis A., Birds Point, Mo.

MONITEAU COUNTY.

Allee, E. M., California, Mo.
Bramel, H. W., McGirk, Mo.
Burke, J. P., California, Mo.
Crum, J. A., Marion, Mo.
Dearing, W. A., Jamestown, Mo.
Freudenberger, H., Clarksburg, Mo.
Gray, L. M., California, Mo.
Houser, F. W., California, Mo.
Inglish, J. E., Bacon, Mo.
Klueber, H. C., California, Mo.
Lang, J. W., Centertown, Mo.
Latham, H. W., Latham, Mo.
Latham, L. L., Latham, Mo.
Marsh, J. W., Tipton, Mo.
Norman, J. B., California, Mo.
Patterson, W. R., Tipton, Mo.
Popejoy, H. R., High Point, Mo.
Redmon, S. H., Tipton, Mo.
Robertson, J. M., Bunceton, Mo.
Stewart, J. B., Clarksburg, Mo.
Thorpe, A. V., Jamestown, Mo.
Wilson, G. S., Fortuna, Mo.

MORGAN COUNTY.
No Report Received.

MONROE COUNTY.

Baker, Chas., Sante Fe, Mo.
Bell, W. T., Stoutville, Mo.
Brown, S. M., Monroe City, Mo.
Brown, J. E., Florida, Mo.
Carver, F. S., Madison, Mo.
Cassity, G. H., Tulip, Mo.
Dixon, C. H., Holliday, Mo.

Duncan, Edward, Long Branch, Mo.
Ely, A. W., Monroe City, Mo.
Furnish, J. A., Granville, Mo.
Hull, J. R., Monroe City, Mo.
Johnson, G. A. Holliday, Mo.
Lensley, M. E., Madison, Mo.
Lloyd, T. B., Paris, Mo.
McMurray, M. C., Paris, Mo.
McNutt, W. B. A., Monroe City, Mo.
Moss, F. M., Paris, Mo.
Payne, H. G., Paris, Mo.
Shobe, H. C., Paris, Mo.
Sweeney, John L., Monroe City, Mo.

NEW MADRID COUNTY.

No Report Received.

NEWTON COUNTY.

Benton, A. W., Neosho, Mo
Bowers, H., Neosho, Mo.
Bridges, J. M., Tipton Ford, Mo.
Brown, W. D., Newtonia, Mo.
Campbell, William, Seneca, Mo.
Chapman, U. S., Diamond, Mo.
Cravens, W. A., Granby, Mo.
Doty, E. G., Anderson, Mo.
Foster, H. F., Neosho, Mo.
Hancock, J. B., Newtonia, Mo.
Harrison, G. W., Newtonia, Mo.
Hodges, J. J., Granby, Mo.
Lamson, J. W., Neosho, Mo.
Lamson, R. C., Neosho, Mo.
Langley, J. W., Granby, Mo.
Maas, A., Neosho, Mo.
Porter, H. L., Seneca, Mo.
Roseberry, E. M., Neosho, Mo.
Vancleave, C. T., Neosho, Mo.
Weems, D. L., Neosho, Mo.
Wills, R. L., Neosho, Mo.

NODAWAY COUNTY.

Allen, A. B., Maryville, Mo.
Anthony, F. R., Maryville, Mo.
Barnett, A. D., Guilford, Mo.
Bradbury, R. M., Maryville, Mo.
Carter, Marcus, Burlington Junction, Mo.
Crowson, E. L., Pickering, Mo.
Cummins, K. C., Maryville, Mo.
Day, Hiram, Parnell, Mo.
Dean, C. G., Burlington Junction, Mo.
Dean, L. E., Maryville, Mo.
Gaugh, M. A., Burlington Junction, Mo.
Goodson, H. C., Hopkins, Mo.
Heryford, W. B., Pickering, Mo.
Howell, C. F., Bedison, Mo.
Hunterson, D. J., Parnell, Mo.
Johns, Comer, Wilcox, Mo.
Kirk, C. W., Hopkins, Mo.
Koch, C. D., Maryville, Mo.
Large, S. D., Hopkins, Mo.
Larrabee, J. A., Barnard, Mo.
Malzahm, E. T., Ravenwood, Mo.
Martin, F. M., Maryville, Mo.
Lee, F. A., Skidmore, Mo.
McClanahan, G. N., Guilford, Mo.
Nash, G. A., Maryville, Mo.
Pierpoint, J. E., Skidmore, Mo.
Pollard, D. A., Barnard, Mo.
Pollard, M. M., Barnard, Mo.
Ryan, F. M., Quitman, Mo.
Sargent, D. A., Hopkins, Mo.
Sayler, H. L., Elmo, Mo.
Smith, D. G., Arkoe, Mo.
Stuckle, W. P., Clyde, Mo.
Todd, J. H., Maryville, Mo.
Wallis, W. M., Maryville, Mo.
Wallis, F. C., Maryville, Mo.

PEMISCOT COUNTY.

No Report Received.

PERRY COUNTY.

No Report Received.

PETTIS COUNTY.

(All addresses are Sedalia, Mo., unless otherwise stated.)

Bishop, W. T., Hughesville, Mo.
Bohling, C., Fifth and Ohio.
Campbell, A. J., 301 Ohio.
Cole, H. B., 501 S. Engineer.
Collins, M. T., 219 Ilgenfritz Bldg.
Cowan, W. G., 504 S. Ohio.
Dunlap, W. O., 108 West Main St.
Dyer, David P., Dresden, Mo.
Ferguson, W. J., 321 Ohio.
Hubbard, J. D., Versailles, Mo.
Kelly, Sam. Ilgenfritz Bldg.
Knott, Minerva, E. 7th St.
Love, J. G., State Hosp., Nevada, Mo.
McNeil, C. A., M. K. & T. Hospital.
McNeil, G. E., M. K. & T. Hospital.
Morley, F. R., 1103 E. 5th St.
Overstreet, W. C., 312 S. Ohio.
Sands, M. L., Cole Camp, Mo.
Simonds, Wallace, 418 S. Ohio.
Sutton, F. L., Hoffman Bldg.
Shirk, W. S., Hoffman Bldg.
Titsworth, G., 508 S. Ohio St.
Tucker, A. J., 401 S. Ohio.
Wood, E. A., Hoffman Bldg.
Yancey, E. F., M. K. & T. Hospital.

PHELPS COUNTY.

Baysinger, S. L., Rolla, Mo.
Breuer, W. H., St. James, Mo.
Burns, W. F., Newburg, Mo.
Cowan, R. B., Edgar Springs, Mo.
Fulbright, C. H., St. James, Mo.
Johnson, R. L., Rolla, Mo.
Matlock, L. J., St. James, Mo.
Rowe, S. B., Rolla, Mo.
Short, N. J., Rolla, Mo.
Smith, B. T., Newburg, Mo.
Smith, W. S., Rolla, Mo.

PIKE COUNTY.

Bankhead, C. L., Paynesville, Mo.
Bankhead, J. E., Clarksville, Mo.
Barnett, D. E., New Hartford, Mo.
Bartlett, E. M., Clarksville, Mo.
Bartlett, J. M., Clarksville, Mo.
Biggs, M. O., Bowling Green, Mo.
Byrns, R. W., Frankford, Mo.
Davis, J. D., Louisiana, Mo.
Dreyfus, I. W., Louisiana, Mo.
Hardin, Rufus, Louisiana, Mo.
Hereford, R. G., Louisiana, Mo.
Hetherlin, T. Guv, Louisiana, Mo.
Kennedy, J. J., Louisiana, Mo.
Pearson, D. M., Louisiana, Mo.
Pollard, W. H., Eolia, Mo.
Smith, C. A., Annada, Mo.
Treadway, W. W., Turpin, Mo.
Unsell, J. B., Eolia, Mo.
Walters, W. T., Bowling Green, Mo.

PLATTE COUNTY.

Benham, C. E., Parkville, Mo.
Chastain, C. H., Weston, Mo.
Clark, H. M., Platte City, Mo.
Coffey, G. C., Platte City, Mo.
Cowan, Lee, Latan, Mo.
Dinwiddie, F. G., Camden Point, Mo.
Gardner, P. L., Waldron, Mo.
Hale, J. M., Dearborn, Mo.
Herndon, A. S., Camden Point, Mo.
Mizener, J. L., Edgerton, Mo.
Moore, M. H., Dearborn, Mo.
Naylor, Alva., Platte City, Mo.
Patterson, H. H., Edgerton, Mo.
Redman, Spencer, Platte City, Mo.
Shafer, F. M., Edgerton, Mo.
Shultz, J. W., Weston, Mo.
Smith, A. S. J., Dearborn, Mo.
Swaney, W. D., Linkville, Mo.
Underwood, L., Parkville, Mo.
Wilson, R. P. C., Platte City, Mo.
Winter, J. H., Parkville, Mo.
Yocum, G. D., Parkville, Mo.

POLK COUNTY.

Brown, Chas. H., Fair Play, Mo.
Cousins, S. W., Morris, Mo.
Hopkins, W. S., Bolivar, Mo.
Loafman, J. E., Bolivar, Mo.
Mitchell, A. P., Bolivar, Mo.
Myers, W. T., Aldrich, Mo.

PULASKI COUNTY.

No Report Received.

PUTMAN COUNTY.

Carryer, C. H., Hartford, Mo.
Cozad, F. A., Powerville, Mo.
Geisinger, E. J., Unionville, Mo.
Gray, L. L., St. John, Mo.
Haynes, Lee, Mendota, Mo.
Holman, J. H., Unionville, Mo.
McCutchen, J. E., Lemonsville, Mo.
Montgomery, E. A., Unionville, Mo.
Noel, I. F., Unionville, Mo.
Rice, F. D., Lucerne, Mo.
St. John, R. L., Howland, Mo.
Thomas, C. O., Worthington, Mo.
Townsend, J. A., Unionville, Mo.

RALLS COUNTY.

Birney, W. L., Oakwood, Mo.
Downing, T. J., New London, Mo.
Graves, C. H., Center, Mo.
Hendrix, W. G., New London, Mo.
Harwood, W. S., Rensselear, Mo.
Monroe, Thomas, Center, Mo.
McCullon, R. W., Center, Mo.
Ragen, Sam., New London, Mo.
Walter, Fred., Perry, Mo.
Waters, W. T., New London, Mo.
Wix, F. M., Center, Mo.
Winn, M., Hasco, Mo.

RANDOLPH COUNTY.

Ash, O. O., Moberly, Mo.
Bamhart, D. A., Huntsville, Mo.
Dutton, C. K., Moberly, Mo.
Howery, J. A., Clifton Hill, Mo.
Mitchell, R. A., Clark, Mo.
Selby, W. M., Moberly, Mo.
Terrill, W. R., Clifton Hill, Mo.
Taylor, J. W., Huntsville, Mo.
Toules, S. P., Jacksonville, Mo.

RAY COUNTY.

Cook T. B., Rayville, Mo.
Estill, W. G., Lawson, Mo.
Greene, L. D., Richmond, Mo.
Hamilton, R. L., Richmond, Mo.
Magor, H., Hardin, Mo.
Mussen, E. H., Norborne, Mo.
Rentfro, E. W., Rayville, Mo.
Shotwell, C. B., Richmond, Mo.
Smith, James W., Richmond, Mo.
Sheets, R., Orrick, Mo.
Todd, W. G., Lawson, Mo.

REYNOLDS COUNTY.

No Report Received.

RIPLEY COUNTY.

No Report Received.

ST. CHARLES COUNTY.

Edwards, J. C., O'Fallon, Mo.
Hardin, Thomas Lee, Defiance, Mo.
Jackson, T. J., St. Charles, Mo.
Kraft, A. J., Augusta, Mo.
Richoff, H. J., Augusta, Mo.
Wiegers, T. L., Flint Hill, Mo.

ST. CLAIR COUNTY.

Bell, W. E., Osceola, Mo.
Cline, W., Appleton City, Mo.
Moorehouse, Emma, Appleton City, Mo.
Seevers, Ruth, Osceola, Mo.
Smith, E. J., Appleton City, Mo.
Stratton, L. S., Roscoe, Mo.
Williams, D. B., Osceola, Mo.

ST. FRANCOIS COUNTY.

Appleberg, R., Leadwood, Mo.
English, J. H., Farmington, Mo.
Evans, A. L., Bonne Terre, Mo.
Fleming, C. R., Farmington, Mo.
Haw, J. L., Farmington, Mo.
Lister, R. B., Desloge, Mo.
McCormick, E. C., Farmington, Mo.
McEwen, G. A., Farmington, Mo.
McKenzie, D. H., Leadwood, Mo.
Reece, W. C., Elvins, Mo.
Williams, G. B., Flat River, Mo.

STE. GENEVIEVE COUNTY.

Hertich, C. J., Ste. Genevieve, Mo.
Hinch, F. E., Ste. Genevieve, Mo.
Jarvis, N. W., Bloomdale, Mo.
Lanning, R. W., Ste. Genevieve, Mo.
Meyer, A. G., Ste. Genevieve, Mo.
Moore, C., St. Marys, Mo.
Morganstein, H. J., Weingarten, Mo.
Rutledge, G. M., Ste. Genevieve, Mo.
Shirley, J. M., St. Marys, Mo.
Wilkins, J. A., St. Marys, Mo.

ST. LOUIS COUNTY.

Armstrong, C. L., Webster Groves, Mo.
Bracy, Rolla, Wellston, Mo.
Brossard, P. M., Maplewood, Mo.
Cape, L. W., Maplewood, Mo.
Carter, H., Webster Groves, Mo.
Coleman, H. F., Pattonville, Mo.
Dalton, M., Fenton, Mo.
Denny, R. B., Eureka, Mo.
Douglass, J. T., Ferguson, Mo.
Dunnavant, C. A., Kirkwood, Mo.
Forsyth, R. C., Kirkwood, Mo.
Gallagher, J. C., Valley Park, Mo.
Greensfelder, H., Kirkwood, Mo.
Guibor, F. E., Maplewood, Mo.
Higgins, R. M., Kirksville, Mo.
Jenson, N. N., Florissant, Mo.
Koch, O. W., Ballwin, Mo.
Loving, S. R., Central, Mo., R. F. D. No. 2.
Lucas, H. T., Bridgeton, Mo.
Maisch, Aug., Manchester, Mo.
Metcalf, N. E., Maplewood, Mo.
Miles, H., Webster Groves, Mo.
Moore, R. D., Central, Mo.
O'Brien, L. F., Sappington, Mo.
Pfister, J. D., Creve Coeur, Mo.
Pitman, John, Kirkwood, Mo.
Randall, H. T., Clayton, Mo.
Reynolds, S. H., Maplewood, Mo.
Thurman, E J., Fenton, Mo.
Townsend, W. H., Maplewood, Mo.
Will, S. J., Jefferson Barracks, Mo.
Wyer, H. G., Kirkwood, Mo.
Zuppam, Chas., Baldwin, Mo.

ST. LOUIS MEDICAL SOCIETY.

(All addresses St. Louis, Mo.)

Abeken, F. W., 3531 S. Broadway.
Albrecht, F. H., 3763 Westminster Pl.
Allison, Nathaniel, Linmar Bldg.
Alt, A., 3036 Locust St.
Althaus, Carl, 2024 S. Jefferson.
Ambrose, A. O., 313 N. Ninth St.
Amos, N. W., 3001 Olive St.
Amyx, R. F., 1943 N. Eleventh St.
Amerland, J. H., 2739 Chippewa St.
Apperson, E. L., Linmar Bldg.
Appleberry, D., Tamm and Clayton Road.
Atkinson, R. C., 3002 Lafayette Ave.
Atkins, H. S., Insane Asylum.
Aufderheide, W. D., 2754 Arsenal St.
Auler, H. A., 2708 Lynch St.
Ayars, T. R., 3901 Easton Ave.
Babler, E. A., 617 Euclid Ave.
Bailey, F. W., 1611 California Ave.
Baker, R. W., 4233 Olive St.
Ball, J. M., 3509 Franklin Ave.
Ball, O. F., Linmar Bldg.
Barck, C., Humboldt Bldg.
Barclay, R., 3894 Washington Ave.
Barnes, A. S., 5434 Maple Ave.

Barnes, A. S., Jr., Mo. Trust Bldg.
Barnes, P. C., 2931 Easton Ave.
Barnes, P. L., 5434 Maple Ave.
Barnes, R. H., 412 Sarah St.
Baron, Jules, 4900 Berlin Ave.
Barrington, R. L., 5658 Cates Ave.
Bartenheier, F. G., City Hospital.
Bartlett, Willard, 4257 Washington Ave.
Bartscher, H. W., 829 Bremen Ave.
Bauer, C. E., 2104 N. Fourteenth St.
Baumgarten, G., Humboldt, Bldg.
Baumgarten, Walter, Humboldt Bldg.
Baumgartner, C., 2108 Russell Ave.
Becker, W. H., 4743 Labadie Ave.
Beckham, G. S., 5110 Page Blvd.
Bedal, A. C., 3418 Lucas Ave.
Behrens, L. H., 5 S. Broadway.
Benson, B. G., 2136 Benton St.
Bennett, Floyd W., 2828 St. Vincent Ave.
Birdman, F. H., City Hospital.
Bishop, F. L., 516 N. Garrison Ave.
Black, W. D., 1411 California Ave.
Blair, V. P., Linmar Bldg.
Blatner, F. O., 233 S. Jefferson.
Bliss, M. A., Humboldt Bldg.
Bock, A. F., 1107 N. Grand Ave.
Boehm, Jos. L., 3806 Delmar Ave.
Boemler, Geo., 1922 St. Louis, Ave.
Boggs, J. D., 813 N. 18th St.
Bond, Y. H., 315 N. Grand Ave.
Booth, D. S., Linmar Bldg.
Botts, McDowell, Frisco Hospital.
Bradley, A. H., 1019 N. Twenty-first St.
Bradley, J. M., 2329 Montgomery Pl.
Bradley, J. M.
Brandenburger, L. A., 2900 Eads Ave.
Brady, J. M., 1467 Union Blvd.
Bribach, Benno, 7608 Michigan Ave.
Broderick, J. K., Hotel Beers.
Brooks, H. S., 3557 Lafayette Ave.
Broome, G. W., 619 N. Kingshighway.
Brown, A. C. F., 3200 Olive.
Brown, J. Y., City Hospital.
Brown, O. H., Grand & Caroline Sts.
Bryan, R. S., Humboldt Bldg.
Bryan, W. M. C., 3858 Westminster Pl.
Buchanan, J. M., 721 N. Kingshighway.
Buckwalter, J. C., Century Bldg.
Buhman, R., 5264 Page Ave.
Burford, J. C., 932 Hamilton Ave.
Burnett, E. C., Century Bldg.
Burnett, D. C., 2602 N. Taylor Ave.
Burns, R., 4500 Olive St.
Butler, L. P., Maryland & Euclid.
Byrd, E., 1000 Bitner St.
Cadwallader, I. H., 919 N. Taylor Ave.
Cale, G. W., 12 Lenox Pl.
Calnane, J. A., 1407 N. Grand.
Campbell, A. V., 4631 Westminster Pl.
Campbell, G., 3429 Morgan Ave.
Cape, L. W., Sutton & Hazel.
Caplan, L., Lister Bldg.
Carley, H. D., 3419 Bell Ave.
Carman, R. D., 4419 Olive St.
Carson, G. W., 301 Century Bldg.
Chaddock, C. G., 3750 Lindell Bl.
Charles, Jos. W., Humboldt Bldg.
Clarke, B. W., Vanol Bldg.
Clark, S. E., 2835 Morgan.
Clemens, James R., 3720 Pine.
Clopton, M. B., Humboldt Bldg.
Colassowitz, A., Olivia Bldg.
Connolly, P. D., 2556 N. Grand Ave.
Constantine, M. F. K., 2429 Warne Ave.
Cook, G. E., 1739 N. 9th St.
Crandall, G. C., 4287 Olive St.
Creveling, H. C., Humboldt Bldg.
Crossen, H. S., 4477 Delmar Ave.
Cummings, H. J., 1200 N. Grand Ave.
Dalton, H. C., 3536 Easton Ave.
Dames, A. F., Easton & Goodfellow.
Davis, L. H., 1017 Park Ave.
Davis, Robert H., Lister Bldg.
Davis, W., Academy & Page.
Dean, J. M., 319 N. Grand Ave.
Dickerson, W. L., 5424 Easton Ave.
Dixon, C. H., Lister Bldg.
Dorsett, E. Lee, City Hospital.
Dorsett, Walter B., Linmar Bldg.
Dorsey, B. L., 1422 N. Taylor Ave.
Doyle, W. J., City Hospital.
Drake, Geo. S., Jr., Humboldt Bldg.
Drescher, F. B., 3926 S. Broadway.
Duncan, J. H., Humboldt Bldg.
Ehrenfest, H., Vanol Bldg.
Eidmann, W. P., 3160 Morganford Road.
Elbrecht, O. H., Female Hospital.
Elmer, W. P., 612 N. Taylor Ave.
Engelbach, Wm., Humboldt Bldg.
Engman, M. F., Humboldt Bldg.
Eberlein, E. W., 1208 Dillon St.
Epstein, M. J., 1905 N. Eleventh St.
Erhardt, R. T., 313 N. 9th St.
Ewing, A. E., 5956 Cabanne Ave.
Eyerman, E. H., 1800 S. Broadway.
Fahlen, Fred, Humboldt Bldg.
Falk, J. C., 2701 Stoddard St.
Fienup, T. F., 3218 Lafayette Ave.
Fisher, J. A., 5924½ Easton Ave.
Fisch, C., 3212 Pine St.
Fischel, W. E., Humboldt Bldg.
Fischer, W. E., Linmar Bldg.
Fleming, A. W., 4130 Manchester Road.
Forster, O. E., Carleton Bldg.
Fowler, C. E., 8036 N. Broadway.
Fowler, S. R., Carleton Bldg.
Frankenthal, M., 4163 McPherson Ave.
French, Pinckney, Mo. Lincoln Trust Co.
Freudenstein, W. H., 2826 Clark Ave.
Freund, Newton M., 1440 S. 18th St.
Friedman, J., 308 N. Sixth St.
Frielingsdorf, E. H., 2202 S. Broadway.
Fries, W. A., 1544 S. Broadway.
Fry, F. R., Humboldt Bldg.
Fuchs, W. H., Lafayette & Compton Ave.
Fuhrmann, R. H., 3221 California Ave.
Fulton, A. L., 2656 Russell Ave.
Funkhouser, R. M., 4354 Olive St.
Furney, E. E., 3417 Morgan St
Gamble, D. C., 37 Portland Pl.
Garstang, D. B., Linmar Bldg.
Gauen, G. A., 1518 N. Grand Ave.
Geitz, H. A., Humboldt Bldg.
Gellhorn, Geo., Linmar Bldg.
Gettys, S. L., Linmar Bldg.
Glasgow, F. A., 3894 Washington Ave.
Glennon, W. P., 319 N. Grand Ave.
Goawl, H. P., 3353 Nebraska, Ave.
Godfrey, Geo. B., 3933 Nebraska Ave.
Goldstein, M. A., 3858 Westminster Pl.
Goodloe, H., Vanol Bldg.
Goodman, D. C., Lister Bldg.
Goodwin, E. J. Linmar Bldg.
Gorden, F. N., 1542 Mississippi Ave.
Gorin, Geo. M., 4225 W. Belle.
Gradwohl, R. B. H., 5269 Vernon Ave.
Graham, I. E., 1417 Newstead Ave.
Grant, J. M., 4132 Easton Ave.
Graul, R. E., 2905 Cherokee St.
Graves, Spencer C., Lister Bldg.
Graves, Wm. W., Vanol Bldg.
Gray, Isabell, 3016A S. Grand Ave.
Green, John Jr., Vanol Bldg.
Greer, E. O., 2750 Park Ave.
Greiner, Theo., 5534 Easton Ave.
Gregg, A. M.
Griffin, F. H., 4504 Easton Ave.
Grindon, Joseph, 3894 Washington Ave.
Gross, J. H., 306 Oriel Bldg.
Grosse, L. W., City Hospital.
Grote, W. F. H., 2705 N. Fourteenth St.
Guggenheim, Louis, L., City Hospital.
Guhman, J. O., 4531 Washington Ave.
Guhman, M. J., 3505 N. Twenty-sixth St.
Gundlach, A., 2202 University St.
Haase, M. E., 1105 S. Seventh St.
Habermaas, A., 3817 Cleveland Ave.
Hall, W. A., 1556 Tower Grove.
Hall, Willis, Humboldt Bldg.
Hallam, J. C., Mermod & Jaccard Bldg.
Hardaway, W. A., Lister Bldg.
Hardy, Joseph A., 7620 S. Broadway.
Harmann, M., 3441 N. Ninth St.
Harnisch, H. D., 2407 S. Eighteenth St.
Hardy, W. F., 2302 S. Jefferson.
Harris, D. L., 5001 Morgan St.
Harrol, W. E., 6201 Etzel Ave.
Hartmann, Jacob A., 1220 Hickory St.

Hauck, E. F., 1638 S. Twenty-sixth St.
Hauck, L., 903 Morrison Ave.
Hawley, N. J., Century Bldg.
Helwig, H. J., 2804 Manchester.
Hempelmann, L. H., 1107 N. Grand Ave.
Henderson, F. L., Humboldt Bldg.
Henke, A. F., 2210 Howard St.
Hennerich, J. P., 2921 S. Broadway.
Henske, A. A., 1504 St. Louis Ave.
Herchenroeder, L. C., 2904 Park Ave.
Hermann, H. W., 1127 N. Grand Ave.
Heuer, Phil H., Humboldt Bldg.
Heyer, C., 910 N. Tenth St.
Hill, Roland, 4605 Delmar Ave.
Hirschi, W. T., 2217 N. Grand Ave.
Hoeffer, J. P., 2304 S. Compton Ave.
Hoffman, P., 3337 Washington Ave.
Hoge, M. W., Linmar Bldg.
Hogebson, R. W., Frisco Bldg.
Holt, Chas. S., 637 Century Bldg.
Holman, R. S., 3951 Delmar Ave.
Holtgrewe, F. W., 1601 Blair Ave.
Holt, E. E., 1532 Franklin Ave.
Homan, G., Odd Fellows' Bldg.
Hopkins, T. A., Century Bldg.
Houwink, J. J., 902 Bayard Ave.
Howard, O. L., 4213 Nat. Bridge Road.
Huber, Julius B., 2752 Chippewa St.
Hughes, C. H., 3872 Washington Ave.
Hughes, H. S., 2937 St. Vincent Ave.
Hughes, Mark Ray, 3872 Washington Ave.
Hypes, B. M., 2005 Victor St.
Jacobson, H., Mo. Trust Bldg.
James, J. A. J., Carleton Bldg.
Jennings, J. E., Carleton Bldg.
Johnson, E. H., 2507 N. Spring Ave.
Johnson, F. P., 3744 Finney Ave.
Johnson, H. McC., Linmar Bldg.
Jonas, E., 4474 Westminster Pl.
Jones, M. D., 4068 Washington Ave.
Jeude, J. J., 2521 S. Broadway.
Jungk, C. G. W., 536 N. Taylor.
Kane, R. E., 1123 N. Grand Ave.
Keber, J. B., 448 Century Bldg.
Keeble, R. R., 2747 Lafayette Ave.
Keehn, G. A., 2702 N. Grand Ave.
Kennedy, W. U., 1121 Cass Ave.
Kern, B. C.
Kern, J. H., 1317 Madison St.
Kessler, E. H., 3446 Shenandoah Ave.
Kieffer, A. R., 4268 W. Belle Pl.
Kier, W. F., 3609 Lindell Bl.
Kimball, A. C., Grand & Franklin Ave.
Kimbrough, John S., Humboldt Bldg.
Kirchner, W. C. G., 1211 N. Grand Ave.
Klokke, Wm. E., 1316 Mississippi Ave.
Klie, G. H. C., 5100 N. Broadway.
Klienfelter, M. L., 536 N. Taylor.
Klenk, C. L., 2105 S. Broadway.
Koch, J. V., City Hospital.
Koenig, G. W., 740 S. Fourth St.
Koetter, A. P., A. F., 1023 N. Grand.
Koontz, C. J., 4551 Delmar.
Krebs, G. A., 2709 S. 11th St.
Krebs, F. J. V., 1906 St. Louis Ave.
Krenning, W. G., 4041A St. Louis Ave.
Kroeger, G. B., 3622 Garfield.
Krug, F. H., 2506 N. 15th St.
Kuhlman, F. C. E., 2135 St. Louis Ave.
Kuhn, D., 1746 Choteau Ave.
Kurtzeborn E.
Laidley, L. H., 308 N. Sixth St.
Langan, W. J., Plymouth & Goodfellow.
Larew, J. L., Olivia Bldg.
Lawrence, W. S., 1913 N. Grand Ave.
Lemen, J. R., Vanol Bldg.
Leighton, W., 926 Academy Ave.
Lewis, Bransford, 627 Century Bldg.
Levy, A., Lister Bldg.
Lightner, C. R., 2313 Washington Ave.
Lincoln, H. F., City Hospital.
Link, J. J., Mermod & Jaccard Bldg.
Lippe, M. J., 4321 W. Belle Pl.
Lipsitz, S., City Hospital.
Loeb, C., Humboldt Bldg.
Loeb, H. W., Humboldt Bldg.
Lowenstein, H. M., 2615 N. Taylor.
Long, J. M., 513 Sarah St.
Luedde, W. H., Twenty-seventh & Washington
Luedeking, R., 1837 Lafayette Ave.
Luton, L. S., Olivia Bldg.
Lutz, F. J., 1630 S. Grand Ave.
Lyon, G. E., Planters Hotel.
Lyon, H. N., Humboldt Bldg.
Marchildon, John W., 2254 S. Vandeventer.
Mardorf, W. C., 1111 Choutean Ave.
Marks, H., 2930 Morgan St.
Marquardt, Arthur V., 521 Century Bldg.
Martin, C. P., 4111 N. Grand Ave.
Martin, T. A., Century Bldg.
Marx, Ella, 4269 Delmar Ave.
Mayes, J. F., 1803 Olive St.
McAnnis, L. C.
McCandless, Wm. A., 5026 Washington Ave.
McClure, J., 1704A Market St.
McConnell, Guthrie, 4421 Berlin Ave.
Meinhard, Joseph, 921 Chouteau Ave.
Meisenbach, A. E., 2624 S. Jefferson.
Menestrina, J. F., 3409 Washington Ave.
Menkhaus, J. B., 4607 Easton Ave.
Meng, E. R., 728 N. Taylor Ave.
Meyer, H. H., 1823 N. Taylor Ave.
Millar, R. C. M., 4344 Easton Ave.
Miller, H. E., 2257 Missouri Ave.
Miller, R. S., 527 Frisco Bldg.
Miller, W. J., 3014 Park Ave.
Millican, Kenneth W., 3837 W. Pine Blvd.
Mook, W. H., Humboldt Bldg.
Moore, B. W., 3634 Washington Ave.
Moore, J. W., 906 Pine St.
Moore, H. M., Linmar Bldg.
Moore, W. G., 86 Vandeventer Pl.
Morfit, J. C., Humboldt Bldg.
Morrell, M. P., 3693 Olive St.
Morris, C. C., 2945 Franklin.
Mueller, C. E., 1419 S. 7th St.
Mueller, G. L., 1310 Clinton St.
Mudd, H. G., Humboldt Bldg.
Mueller, E., 3334 California Ave.
Muetze, Henry, 3201 Shenandoah Ave.
Munsch, A. P., 1504 Wagoner Pl.
Munson, C. L., 622 Hickory.
Murphy, J. C., 4263 Morgan St.
Murphy, R. B., 6035 Manchester Ave.
Myer, J. S., 3894 Washington Ave.
Myerdick, Albert H., 536 N. Taylor Ave.
Nash, W. H., Commercial Bldg.
Neuhoff, F., 1318 Chouteau Ave.
Neville, E. J., Linmar Bldg.
Newman, L. E., Humboldt Bldg.
Newman, S. E., 465 N. Taylor Ave.
Nicholson, C. M., Lister Bldg.
Nietert, H. L., Century Bldg.
Norris, E. J., 4223 Russell Ave.
Ogle, O. L., 2625 St. Louis Ave.
O'Keefe, J. J., 4587 W. Belle Terrace.
O'Reilly, R. J., 602 N. 7th St.
Orr, C. J., Linmar Bldg.
Outten, W. B., Mo. Pac. Hospital.
Owen, W. C., 3846 Folsom Ave.
Padberg, L. R., 3550 Arsenal St.
Park, George M., 7544 Cates Ave.
Parker, C. W., 3502 N. Jefferson Ave.
Parker, Frederick, 1423 Euclid.
Parse, A., Frisco Hospital.
Patton, F. W., 5617 Maple Ave.
Pfeiffenberger, J. M., Alton, Ill.
Pfieffer, Hy. G., 1100 Geyer Ave.
Pfingsten, C. F., 2230 College Ave.
Pitzman, M., City Hospital.
Poignee, F. P., 914 Hickory St.
Pollman, L. P., 2002 St. Louis Ave.
Pope, Chas. H., 1557 S. Jefferson Ave.
Pope, Sherman, 1557 S. Jefferson Ave.
Porter, Peter, 3863 Flad Ave.
Porter, Wm., 520 Olive St.
Porterfield, E. P., 4635 Easton Ave.
Post, H. M., Twenty-seventh & Washington Ave.
Potts, J. D., Lister Bldg.
Powell, C. H., Century Bldg.
Raithel, G. H., 1146 Hogan St.
Rassieur, L., 1807 S. Broadway.
Ravold, A., 312 Century Bldg.
Reder, F., 4629 Cook Ave.
Reed, E. E., 4457 Washington Ave.

Reinders, Otto, 2500 S. Twelfth St.
Rehfeldt, C. S., 2255 S. Jefferson Ave.
Remme, C. F., 400 S. Fourteenth St.
Rice, D. F., 5145 Cabanne, Ave.
Riesmeyer, L. T., 2838 Lafayette Ave.
Ring, Frank, Chemical Bldg.
Robinson, A. C., 5083 Wes:minster Pl.
Robertson, W. M., Humboldt Bldg.
Rodcliffe, E., City Hospital.
Rohlfing, A. H., City Dispensary.
Rohlfing, C. G., 1200 N. Eighth St.
Rohlfing, H. A. L., 2602 Laclede Ave.
Rohlfing, L. C., 3126 N. Grand Ave.
Rose, J. B., 1908 Grand Ave.
Rosebrough, F. H., Grand & Bell Ave.
Rothstein, H. B., 3309 S. Thirteenth St.
Rotter, C. F., 1910 Arsenal St.
Ruddell, 1231 N. Taylor Ave.
Rumbold, F. M., 450 Century Bldg.
Rusk, Elizabeth. E., 4241 Delmar Ave.
Salter, J. C., 3634 Washington Ave.
Sante, A. H., 3141 Laclede Ave.
Sauer, W. E., Humboldt Bldg.
Saunders, E. W., 3003 Lafayette Ave.
Schery. C. W., 917 Allen Ave.
Schleiffarth, C. W., 3619A Connecticut.
Schleuter, R. E., 740 S. Fourth St.
Schlosstein, A. G., 3153 Goodfellow Ave.
Scmalhorst, D. E., 8111 N. Broadway.
Schisler, E., 2027 S. Jefferson.
Schmez, E., 3869 Cottage Ave.
Schmidt, W. C., 2417 S. Broadway.
Scholz, P., 3403 N. Fourteenth St.
Scholz, Paul C., 3201 Franklin Ave.
Scholz, R. P., 1110 Ferry St.
Schuchat, W. L., 2200 Chouteau Ave.
Schulenburg, A. C., Mullanphy Hospital.
Seelig, M. G., Vanol Bldg.
Semple, N. M., Humboldt Bldg.
Shapleigh, J. B., Humboldt Bldg.
Shattinger, C., 2924 S. Grand Ave.
Shoemaker, J. F., Carleton Bldg.
Shultz, H. W., 2603 Cherokee.
Shutt, C. H., City Hospital.
Senseney, Eugene M., 2829 Washington Ave.
Shankland, J. W., City Hospital.
Sharpe, N. W., 3520 Lucas Ave.
Sheahan, E. L., City Hospital.
Shields, W. B., Linmar Bldg.
Simon, F. C., 1835 Cass Ave.
Singer, Jacob J., Female Hospital.
Snider, G., 2647 Washington Ave.
Smith, J. C., Humboldt Bldg.
Smith, L., Humboldt Bldg.
Spencer, H. N., 2723 Washington Ave.
Spencer, Selden, 2723 Washington Ave.
Spiegelhalter, J., 2166 Lafayette Ave.
Spirzig, F., 937 Park Ave.
Stauffer, W. H., Humboldt Bldg.
Steiner, A., 224 Commercial Bldg.
Stewart, J., 4847 Page Ave.
Stockwell, B. E., 2345 S. Broadway.
Straus, Leon, 805 N. Grand Ave.
Streutker, C. E. F., 2410 S. 10th St.
Stroen, C. D., 1749 S. Grand Ave.
Steedman, J. G. W., 2803 Pine St.
Steer, J., 3126 Washington Ave.
Stocking, L. C., 1304 Academy Ave.
Stockwell, B. E., 2345 S. Broadway.
Sullivan, F., 5177 Vernon Ave.
Summa, Hy. H., 3707 N. Eleventh St.
Summa, Hugo, 2249 St. Louis Ave.
Sutter, Otto, Century Bldg.
Talbott, H., Humboldt Bldg.
Tanquary, J. H., 930 Belt Ave.
Taake, E. F., City Hospital.
Taussig, A. E., 3519 Washington Ave.
Taussig, F. J., 534 N. Vandeventer Ave.
Thierry, C. W., 303 N. Grand Ave.
Thmuser, L., 2353 S. Broadway.
Tiedemann, E. F., 2253 S. Vandeventer Ave.
Tooker, Chas. W. Jr., Humboldt Bldg.
Trible, G., 1600 California Ave.
Tuholske, H., 465 N. Taylor Ave.
Tuholske, M. C., Female Hospital.
Tupper, P. Y., 534 N. Vandeventer Ave.
Tuttle, G. M., 4519 Washington Ave.
Ude, Waldemar, 3531 S. Grand Ave.
Valle, J. F., 3303 Washington Ave.
Van Hoefen, S. A., 8313 Halls Ferry Road.
Vasterling, Paul, Mo. Pac. Hospital.
Vaughan, J. W., 4001 W. Belle Pl.
Vogt, W. H., 4977 Lotus
Vogt, W. H., 1443 Blair Ave.
Vonderau, O. L., 1301 Geyer Ave.
Wall, O. A., 4532 Virginia Ave.
Wall, O. A., Jr., 3122 S. Grand Ave.
Ware, Chas., 1404 Olive St.
Warfield, L. M., Chemical Bldg.
Weinsberg, Chas. H., 1531 S. Eleventh St.
Weinsberg, J. H., 2015 Russell.
Wells, H. P., 2313 Washington Ave.
Wesseler, F. W., 2308 Gravios Ave.
Whelpley, H. M., 2342 Albion Pl.
White, C. A., 211 Seventh St.
Wiatt, W., East St. Louis, Ill.
Wichmann, H. L., 3229 S. Jefferson Ave.
Wiener, M., 500 Carleton Bldg.
Wilkes, B. A., Linman Bldg.
Williamson, J. W., 5600 Cates Ave.
Williamson, L. P., 5600 Cates Ave.
Wilson, A., 1514 Wagoner Pl.
Wilson, A. M., 615 Humboldt Bldg.
Winter, Wm., 3632 S. Broadway.
Witherspoon, T. C., Butte, Mont.
Wobus, R. E., 2022 Salisbury St.
Wolf, A. S., Lister Bldg.
Wolf, John, 3869 Flad Ave.
Wood, W. E., Century Bldg.
Woolsey, R. A., Frisco Hospital.
Wright, C. G., 2738 Dickson St.
Wyche, Chas., 401 N. Grand Ave.
Yahlem, N. N., 1816 Franklin Ave.
Yost, W. B., 1119 Union Ave.
Young, A. O., 3141 Lawton Ave.
Zahorsky, John, 1460 S. Grand Ave.
Zoller, C. H., Granite City, Ill.

SALINE COUNTY.

Chastain, M. T., Marshall, Mo.
Gore, D. C., Marshall, Mo.
Gore, A. E., Marshall, Mo.
Hall, J. R., Marshall, Mo.
Harrison, Wm., Marshall, Mo.
Harris, J. E., Marshall, Mo.
Howard, J. H., Slater, Mo.
Jarvis, W. M., Slater, Mo.
Manning, D. T., Marshall, Mo.
Richart, G. A., Blackburn, Mo.
Shuck, L. J., Nelson, Mo.
Spotts, B. M., Marshall, Mo.
Stouffer, R. W., Wapton, Mo.

SCHUYLER COUNTY.

Bridges, J. B., Downing, Mo.
Gerwig, H. E., Downing, Mo.
Jones, J. T., Queen City, Mo.
Justice, W. H., Lancaster, Mo.
Justice, W. F., Lancaster, Mo.
Mitchell, E. L., Lancaster, Mo.
Mitchell, W. F., Lancaster, Mo.
Keller, J. H., Glenwood, Mo.
Rambo, J. H., Glenwood, Mo.
Zeber, W. H., Queen City, Mo.

SCOTT COUNTY.

No Report Received.

SCOTLAND COUNTY.

Alexander, W. E., Memphis, Mo.
Baker, P. M., Arbela, Mo., R. F. D.
Bondurant, W. E. H., Memphis, Mo.
Davis, A. L., Arbela, Mo.
Edelen, B. H., Gorin, Mo.
Foster, G. F., Memphis, Mo.
Johnson, F. M., Gorin, Mo.
Mackey, Alonzo H., Gorin, Mo.
Maynard, G. K., Hitt, Mo.
Parrish, E. E., Memphis, Mo.
Petty, J. W., Rutledge, Mo.
Pile, O. F., Memphis, Mo.
Platter, A. E., Memphis, Mo.
Shacklett, J. A., Rutledge, Mo.

SHELBY COUNTY.

Carson, Wm., Shelbyville, Mo.
Dallas, L. W., Hunnewell, Mo.
Dobson, D. A., Hunnewell, Mo.

Hangler, C., Clarence, Mo.
Owens, W. W., Oak Dale, Mo.
Pollard, H. M., Shelbina, Mo.
Singleton, D. E., Shelbina, Mo.
Smith, J. D., Shelbina, Mo.
White, A., Lakenan, Mo.
Willis, T., Shelbina, Mo.
Wood, A. G., Lentner, Mo.
Wood, A. M., Lentner, Mo.

STODDARD COUNTY.
No Report Received.

STONE COUNTY.
No Report Received.

SULLIVAN COUNTY.

Bowers, H. E., Osgood, Mo.
Bradley, U. S., Harris, Mo.
Garner, R. L., Pollock, Mo.
Hanning, W. L., Humphreys, Mo.
Herrington, W., Green City, Mo.
Holliday, S. J., Pollock, Mo.
Kessinger, Milan, Mo.
Magee, R. S., Green City, Mo.
Parsons, Wm., Greencastle, Mo.
Poole, A. R., Milan, Mo.
Roberts, J. M., Green City, Mo.
Shepler, R. H., Mystic, Mo.
Shriver, C. F., Harris, Mo.
Taylor, H. L., Greencastle, Mo.
Tunnell, J. D., Reger, Mo.

VERNON COUNTY.

Buchanan, J. R., Nevada, Mo.
Callaway, L. H., Nevada, Mo.
Churchell, E. R., Nevada, Mo.
Craig, T. B. M., Nevada, Mo.
Dulin, E. A., Nevada, Mo.
Johnson, J. A., Nevada, Mo.
McLemore, T., Nevada, Mo.
Todd, T. B., Richards, Mo.
Truex, J. L., Milo, Mo.
Wilson, G. C., Nevada, Mo.
Yater, J. M., Nevada, Mo.

WARREN COUNTY.
No Report Received.

WASHINGTON COUNTY.
No Report Received.
WAYNE COUNTY.
No Report Received.

WEBSTER COUNTY.

Beattie, W. R., Rogersville, Mo.
Bruton, D., Seymour, Mo.
Highfill, M., Marshfield, Mo.
James, Ed. T., Marshfield, Mo.
Rabenau, W. J., Fordland, Mo.
Trimble, Eli, Seymour, Mo.

WORTH COUNTY.
No Report Received.

BOOK REVIEWS

A Text Book upon the Pathogenic Bacteria. For Students of Medicine and Physicians. By Joseph McFarland, M. D., Professor of Pathology and Bacteriology in the Medico-Chirurgical College, Philadelphia. *New (5th) Edition.* Octavo volume of 647 pages, fully illustrated, a number in colors. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, $3.50 net.

In this new edition all the latest discoveries in bacteriology are properly considered, and certain material which has become obsolete has been eliminated.

No further comment seems necessary on McFarland's text book upon pathogenic bacteria. It is a work well and favorably known to every teacher and student.

Atlas and Text Book of Human Anatomy. By Dr. Johannes Sobotta, Professor of Anatomy in the University of Wuerszburg. Edited, with Additions, by J. Playfair McMurrich, A.M., Ph.D. Professor of Anatomy in the University of Michigan. Volume II. The Viscera, Including the Heart. With 214 Illustrations, mostly in Colors. Philadelphia and London, W. B. Saunders Co. 1906. Price: Cloth, $6.00.

The second volume of this splendid work on human anatomy has appeared. It deals with the viscera including the heart. Like its predecessor the volume contains numerous large quarto-size plates representing in colors the anatomic structures with wonderful accuracy and clearness. A third volume will complete this work.

A Text Book of the Practice of Medicine. For Students and Practitioners. By Hobart Amory Hare, M.D., B.Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical College Hospital. In one very handsome octavo volume of 1120 pages, with 131 engravings and 11 full-page plates in colors and monochrome. Second edition, revised and enlarged. Cloth, $5.00, *net;* leather, $6.00, *net;* half morocco, $6.50, *net.* Lea Brothers & Co., Philadelphia and New York, 1907.

Well proportioned consideration is given in this volume to the principle and theory of medicine as underlying, explaining and leading up to the main objective point, namely, the practical application of the knowledge. Accordingly the author has taken particular pains to present methods of treatment clearly, and in such a way that they may be put directly into practice.

In this new edition all obsolete matter has been eliminated, all new trustworthy advances incorporated, so that the volume, as it stands, is representative of its subject to date.